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THE
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Art. I.—DOMESTIC MANUFACTURES IN THE SOUTH AND WEST.

THE civil arts embrace the three great pursuits of agriculture, manufactures and commerce; and these are so intimately connected and interwoven, that in writing an essay upon one, we must necessarily have frequent reference to the others. They are the great civilizers of the nations of the earth, and where they flourish most there we may expect to find the highest state of moral improvement. As they spread and extend from country to country, they carry with them something of the minds of those who conceived and improved them. When the people of one nation adopt the pursuits of another, they must necessarily adopt the ideas and reasoning connected with those pursuits; and thus a sympathy is established between nations who were before strangers, and perhaps enemies to each other. By the intervention of commerce these sympathies are cultivated, and a community of interest is established which binds together the whole commercial world.

Hence it will be perceived that any important change which may be introduced in reference to either of these three great pursuits must be felt throughout the entire commercial circle; and the introduction of manufactures in the southwestern States, if prosecuted upon a scale commensurate with the resources of the country, will constitute a new era in the history of the civil arts.

In considering of the propriety and utility of introducing manufactures into any given district, it will be proper to take into view every circumstance that can in any wise affect the particular pursuit proposed

for adoption. The character of the population, the climate, the soil and its products; the particular and relative location of the country, together with its mineral and other natural productions. All these and many other subjects will naturally present themselves for discussion and for consideration.

The population of the southwest, governed as it is by the peculiar institutions of the States in this region, constitutes the most prominent subject of consideration, and claims the attention of all who would desire to form a just opinion upon the subject of manufactures in this district. The free population of the south may be divided into two classes, the slave-holder and the non-slave holder. I am not aware that the relative numbers of these two classes have ever been ascertained in any of the States, but I am satisfied that the non-slave holders far outnumber the slave holders; perhaps by three to one. In the more southern portion of this region the non-slave holders possess, generally, but very small means, and the land which they possess is almost universally poor, and so sterile that a scanty subsistence is all that can be derived from its cultivation, and the more fertile soil being in the possession of the slave holder, must ever remain out of the power of those who have none.

This state of things is a great drawback, and bears heavily upon and depresses the moral energies of the poorer classes. Man requires encouragement,—the desired end must appear attainable, or he will in time cease to strive for it. So it is with these people; the acquisition of a respectable position in the scale of wealth appears so difficult that they decline the hopeless pursuit, and many of them settle down into habits of idleness, and become the almost passive subjects of all its consequences. And I lament to say that I have observed of late years that an evident deterioration is taking place in this part of the population, the younger portion of it being less educated, less industrious, and in every point of view less respectable than their ancestors.

Such a state of things should not exist in the present age in such a country as ours. It should be sufficient to challenge the attention and arouse the energies of the philanthropist and the patriot. It is, in an eminent degree, the interest of the slave holder that a way to wealth and respectability should be opened to this part of the population, and that encouragement should be given to industry and enterprise; and what would be more likely to afford this encouragement than the introduction of manufactures? Diversify the labor and pursuits of the country, and while many will be induced to enter upon these new pursuits and become industrious, enterprising, and useful citizens, a market will

be opened for the produce of the small agriculturist, who will also become stimulated to better his condition,—and not many generations will pass away before this portion of the southern population will rival their eastern neighbors in enterprize and industry.

By such a change the wealth and moral power of the southwest would be increased to an almost indefinite extent, the sources of human comfort would be greatly enlarged, and the liberal arts—the refiners of man—would abound in the land.

To the slave holding class of the population of the southwest, the introduction of manufactures is not less interesting than to the non-slave holding class. The former possess almost all the wealth of the country. The preservation of this wealth is a subject of the highest consideration to those who possess it. Wealth may be divided into two classes, *natural* and *artificial*. The natural wealth of a country consists of the soil forests, minerals, streams, etc. *Artificial wealth is that permanent accumulation of the products of human labor and skill which remains after the immediate and daily wants of the producer are supplied*, and whatever may be the skill and capacity of a community to produce the means of human comfort, this residuum must be regarded as the only true test of its prosperity. Labor, skill and capacity for producing do not constitute wealth in this sense of the term; they are merely the means of its acquisition. The capacity of producing may be very great, and much labor may be performed, and still an individual or a State may not increase in wealth. Nay, so far from it, examples may be found in our own country of States having become poorer by a steady perseverance in an unwise application of their labor. Such is the case in the Atlantic States south of the Potomac, as I think will be granted by every intelligent and candid individual who is acquainted with the country, and I think it will be admitted that these States are poorer than they were twenty years ago. There is a small increase in the number of laborers, and there may have been something gained in skill, but the great source of all wealth in an agricultural country :—the soil, has been greatly deteriorated and diminished, and it may be affirmed without the fear of successful contradiction, that no country, and more especially an agricultural one, can increase in wealth while the soil is becoming more and more exhausted every year, for it is most clear that sooner or later an absolute state of exhaustion must be the result, and no wealth that could be acquired by the sale of these products, the growth of which had caused this state of things, could compensate for the loss of the soil.

Why is not the sandy pine barrens of these States settled and culti-

vated by a prosperous and intelligent population? It is certainly because the soil will not repay the laborer with bread. And when the once fertile hills and valleys of this region shall have been exhausted by an unwise and improvident system to the same state of sterility as the pine barrens, they likewise will fail to reward the laborer with the means of subsistence, and must be deserted and return to the same state of desolation; a state of desolation the more fearful because it speaks of better days, and forces upon the mind a mournful comparison between the present and the past, and upon the passer-by with all their force, the lines of Byron:

"Such is the aspect of this shore;

"Tis Greece, but living Greece no more."

Although I do not entertain the slightest apprehension that this, the fairest and most deligentful region of our continent will ever be reduced to such a state of desolation, yet it may be safely affirmed that a continuance in the unwise and improvident system hitherto pursued, must, in time, produce the state of things alluded to.

It is said that evils sometimes cure themselves, and when man pursues a course of folly to the brink of ruin, necessity, sometimes performing the office of reason, warns him of the danger, and compels him to change his course. And if the people of the southwest do not voluntarily abandon their present system of applying all their labor to the production of a few agricultural staples, necessity will in time compel them to do that which the dictates of reason and common sense should long since have taught. This necessity has been operating for many years, but still the people seem resolved to disobey its mandates; for rather than submit to a change, they prefer to abandon the country of their fathers and of their own birth, and seek homes in other lands. This is abundantly proven by the census of the year 1840, whereby it is shown that the increase of the population of the whole United States in the ten preceding years, was about thirty-three per cent.; yet the increase in Virginia was but 2.19 per cent.; the increase of North Carolina 2.15 per cent; and of South Carolina 2.21 per cent. The ratio of Georgia was sustained, but for the reason that within that time a large area of new territory within her limits was being opened for settlement. That necessity must be strong and urgent which induces thirty-one per cent. of the population of a State in the short space of ten years, to break all the social and individual ties that bind man to the place of his birth, and seek his fortunes in other lands. It may be questioned, if such an instance of so large a portion of the population of

any civilized community, has ever been known to emigrate in so short a period. I am aware that the great quantity of new lands which were brought into market in the southwest, operated as a great inducement to emigration, and under the circumstances of the case, constituted the principal inducement. But if the soil in the old States had been properly husbanded and kept up to its primitive state of productiveness, instead of being reduced to a state of sterility ;—had manufactures been introduced and established, so as to give employment to the surplus labor that was not required in agriculture, this large drain could not have taken place. The capital invested in manufactures cannot be readily transferred from one country to another. In most of the leading branches the fixtures constitute a large part of the outlay, and cannot be removed without great loss, hence when capital is once invested in manufacturing it becomes permanently located, and gives permanency to the population. This view of the subject is sustained by reference to the State of Massachusetts. With a population proverbially enterprising, and much more crowded than that of the southern States ; with a soil originally greatly inferior, and a climate decidedly unfriendly to agricultural pursuits, she still shows an increase of twenty-one per cent. in her population, while in the same time Virginia, North Carolina and South Carolina, only show an increase of about two per cent. And it must also be remembered that within this same space of ten years a very large quantity of the finest lands in the northwest were brought into market ; lands consisting of plains ready for the plough, located near the great thoroughfares of navigation, and a climate suitable to the agricultural habits of the New Englander. With such temptations and inducements to emigrate, it cannot be doubted but that as large a proportion of the population of Massachusetts would have changed their homes had it not been for the establishment of manufactures in that State. Owing to the establishment and encouragement of manufactures, Massachusetts has retained not only the wealth which has been produced by the labor and skill of her population, but she has kept her population at home, contented and prosperous, while Virginia and the Carolinas have been great losers in both. For when the agriculturalist removes he carries with him almost every thing which he possesses in the form of property, except his land, and that is usually so exhausted that it would not be worth transportation, even if it were as portable as bank notes.

The loss of wealth and population is not the only evil attending this propensity to emigrate,—the moral and social condition of those who remain, as well as those who remove must ever be disturbed and more

or less retarded in their advancement. This unsettled state of society prevents the establishment and encouragement of any permanent and efficient system of common schools. And here again by reference to the census of 1840, will be seen how disadvantageously these Southern States compare with Massachusetts and other Eastern States upon this vital policy. In Massachusetts nearly ninety-nine out of every hundred persons over twenty years of age can read and write; in Virginia but about eighty-two out of every hundred; in North Carolina but about seventy-three out of every hundred; and in South Carolina but about eighty-two in every hundred adults can read and write.* Such facts as these, one would suppose were sufficient to arouse the attention of the citizens of the Southern States to an inquiry into the cause of their being so far behind the Eastern States in regard to education, and the general diffusion of useful knowledge among the poorer classes.

When a spirit of emigration prevails in a country, those who are under its influence cease to feel themselves as individuals identified with the community in which they live, they husband all their resources for the purpose of enabling them to remove and establish new homes; and they will not enter into any schemes for the improvement of either the moral or physical condition of the country which they have resolved to abandon. This influence extends far beyond the number who actually remove, for very many continue to consider their removal as probable, for many years together, who do not eventually emigrate; and thus their moral energies are paralyzed, and the country is deprived of their usefulness. Any change in the pursuits of the country that would allay this spirit of emigration, would constitute the beginning of a new and better state of things.

If manufacturers were introduced and encouraged, and the labor of the country sufficiently diversified, so as to give employment to every variety of labour and skill, the population would cease to look for new countries. They would then go to work in earnest to improve both the physical and moral condition of their own. The soil would be improved; more permanent and comfortable habitations would be erected; orchards and gardens would be planted and cultivated; and the country would be redeemed from its present wasted and barren condition. The desire, as well as the means of education would be increased, until there would be no adult freeman found in the land who could not read the constitution of his country. It is a principle in man's na-

* I have calculated these estimates from the tables in the American Almanac for 1842. I cannot answer for their accuracy, as but little reliance can be placed in the census of 1840.

ture to regard with partial consideration the things of his own production. He who improves a barren soil to a high state of fertility, feels an interest in it that he could not enjoy by the possession of a soil naturally rich, and he who improves and embellishes his domain by the cultivation of orchards, gardens and other objects of taste and ornament, derives a pleasure from their use and observation which is unknown to the stranger; these things have been associated with the most cherished objects of his affections, until they have become inseparable; and hence the love of home and of country becomes a sacred principle in the human heart.

Connected with this subject there is another class of the population of the southwest which claims much consideration. And here I may be permitted to remark, that in my humble opinion the institution of slavery in the United States, is destined to produce more extensive results in the improvement and amelioration of the condition of the human family than perhaps any other event that has happened since the christian era. Africa, sunk into a state of barbarism by reason of the unfriendliness of her climate, could never have been redeemed from her degraded condition in any other way than by transporting her children to some country where they could be brought in contact with civilization, and be made to learn its arts. This may appear to be a harsh mode of redemption, but who that is acquainted with the present moral condition of these people, can doubt but the race has been greatly improved by its transportation hither? And though not educated in the schools of literature, they are instructed in most of the substantial arts of civilization; and sufficiently enlightened to understand and appreciate the principles of the christian religion. There is perhaps no instance of a people in an absolute state of barbarism who have made greater advances towards a state of civilization in the same length of time than have the African race of this country.

Without the agency of slave labor, cotton for exportation would never have been grown to any considerable extent in the United States. It may be even doubted whether it would ever have been of sufficient importance to stimulate the inventive genius of Whitney to the construction of the cotton gin; and the primitive mode of extracting the seed by the fingers might have been handed down to the present generation to enliven the fireside of a winter's evening with a cotton picking frolic.

But with the aid of slave labor, the price of the raw material has been reduced to about one-tenth of its former value in the space of half a century; which in conjunction with the improvement of machinery, has also reduced the price of cotton cloth in an equal ratio. Thus

putting it in the power of the poor of every country to procure clothing for at least one-tenth part of the former prices. If effects could be traced to their true causes, I doubt not but that it would be discovered that the improved condition of the poorer classes in every civilized country was as much indebted to the reduced rates in the price of clothing, as to any other one cause whatever. No physical want is so degrading to the human family as the want of clothing; nakedness and rags are the badges of poverty and degradation every where; in this condition man seems to lose all self-respect, and becomes the dependent and passive instrument of him who has courage to use him. But clothe him in comfortable and tasteful raiment, and you impart to him a new spirit; he holds up his head, looks his oppressor in the face and boldly demands his rights.

It is by the agency of slave labor also, that the United States have become the second commercial nation of the earth, and by the same agency they are destined ere long to become the first. But before this pre-eminent position can be attained, a division of this labor must take place and a portion of it must be directed to manufacturing purposes. The southwest will then as far outstrip every other country in the manufacture of cotton, as she has hitherto done in the growth of the raw material. This is a proposition that does not appear as yet to have been considered by the people of the southwest; but has evidently not escaped the consideration of the people of Great Britain. They foresee that if slave labor should be directed to manufacturing, that our cotton crop would no longer be sent to their mills; and if they should still continue to control the crops of other countries, they could not compete with the slave labor of the southwest; for we could under sell them in every market in the world, not excepting their own home market. Hence the interest which Great Britain and France evinced in relation to the annexation of Texas. It was their policy, and a wise policy on their part, to prevent the people of the United States from extending their territory over the fine cotton region of Texas; and thereby monopolizing much the greater portion of the profitable cotton growing district of the continent. Hence likewise the policy of England in becoming the champion of liberty in every part of the world; and though covered with the mantle of philanthropy, the disguise is too thin to conceal the true objects of her designs.

Cotton being the great and leading staple of the southwest, the manufacture of the raw material by the labor of this district becomes a subject of the first importance. And the first question is whether the labor and resources of this region are reasonably adequate to the end

proposed. By reference to the census of 1840 it will be seen that the number of slaves then in the United States was about two million, five hundred thousand. This population doubles in about twenty-five years; thus in the year 1865 the slave population will be five millions, and in the year 1890 it will reach ten millions. This population cannot emigrate but must remain within its present limits. Any one acquainted with the country must be satisfied that so great a number of laborers cannot be profitably employed in agriculture, and long before the number reaches ten millions, the country will become so exhausted and occupied, that property in slaves must become of little or no value, unless some other than agricultural employment is found for them.

To one who is acquainted with the South-Western States, it is known that except in the State of Texas, nearly all the good and fertile uplands in the cotton region have been reduced to cultivation; and although there is a large quantity of the poorer uplands, and a considerable quantity of bottom land, that may yet be brought into cultivation, yet from the rapid deterioration of the lands now under cultivation, and the necessity of increasing the quantity cultivated in grain to supply the increasing population, it is fair to conclude that the cotton crop east, of Texas, has nearly reached its maximum; and that three millions of bales might be assigned as the limit. And allowing one and a half million of bales (which is probably too much) for Texas, we shall limit the cotton crop of the United States to four and a half million of bales. Now according to the most reliable data that I have been able to procure, it would require not exceeding seven hundred thousand laborers to spin and weave four million five hundred thousand bales cotton into plain cloth. The number thus taken from agricultural labor compared to the number of slaves estimated for the year 1890, bears so small a proportion to the ten millions, that it would scarcely be missed out of the field. The white population would afford abundant material for the supply of those branches of the manufactures that require education and skill. Thus it will be seen that in the article of labor, the country will afford it in the greatest abundance without at all interfering with other branches of industry; nay so far from it, by thus drawing off a portion of the labor, the price of slaves will be sustained and other industrial pursuits will be benefited by sustaining the prices of their products.

Thus, I think it must be admitted on all hands, that the article of labor is now abundant in the southwest; and for the reasons before stated, this abundance must increase more rapidly here than in any other country. And a further reason in favor of this proposition is found in the fact that in every other country a portion of the more prosperous

laborers escape from the necessity of laboring, and thus keep down the increase; but every slave is a laborer, and must ever remain so, and so long as this population continues to increase, so long must the number of laborers increase.

Another important consideration connected with this subject, is the *price* of labor in the southwest. I have frequently heard it said that *manufactures could not succeed in this country, owing to the high price of labor.* A female operative in the New England cotton factories, receives from ten to twelve dollars per month,—this is more than a female slave generally hires for in the southwest. But without entering into a comparison of the present nominal price of labor in this and other countries, it is sufficient to say, that whatever the price may be, none can produce any given article as cheap with hired labor as *he* who owns it himself. In the latter case the labor is so much capital in hand, and it is not so much a question with the owner whether he can produce a yard of cloth, or any other given article as low as it can be produced in England or in Massachusetts, but whether by applying his labor to the production of the cloth, or other article, he can make it more profitable than he can by using it in agriculture. It matters nothing to him how low others can produce the article, he can produce it lower still, so long as it is the best use that he can make of his labor, and so long as his labor is worth keeping. It is upon this principle that the southwest is destined to monopolize the manufacture of the whole cotton crop of the United States. But I have heard it frequently asserted that the slaves were not sufficiently intelligent to make useful and profitable operatives in cotton mills; this is an assumption, as I believe, made by those who possess but little knowledge of the negro character. It is a fact well established that negroes learn blacksmithing, carpentering, boot and shoe making, and in short all the handy craft trades with as much facility as white men, and Mr. Deering, of Georgia, has employed slaves in his cotton factory for many years with decided success.

It would no doubt be true, that grown negroes taken from the field would be found awkward and clumsy in the labor of the cotton mill, but slaves put into the factories when young, and raised up to that employment, would make the most efficient and reliable operatives that could be found in any country. They would be efficient, because raised and retained at the same business throughout their lives, they would become most thoroughly capable: they would be more reliable, because they would have no right to prescribe the hours for working; there would be no striking for higher wages; and they would have no right to leave the employment at pleasure, as is the case with free laborers.

These would be eminent advantages in favor of those who employ this species of labor.

Another great advantage which this country possesses over all others in reference to the manufacture of cotton, is found in the fact that it possesses the raw material at prime cost; in most cases it would no doubt be delivered to the manufacturer at less cost than is now incurred in transporting it to the point of exportation. Thus the cotton would be delivered to the mills in this country for about an average of ten per cent. less than it could be delivered at Lowell, in Massachusetts. All other things being *equal*, this of itself would be an advantage that no country could work against for a continued series of years.

The southwest would possess also an advantage in the prices of provisions; this would be especially the case in the valley of the Mississippi. It is not at all improbable that the building of cotton mills in various parts of the country would stimulate the smaller farmers to grow provisions sufficient to feed the operatives, thus affording provisions as well as cotton at prime cost. But if this source should fail, the great bread and provision growing region, watered by the Mississippi and its tributaries, could furnish the operatives of the southwest with bread and other provisions at a much less cost than can ever be furnished to the operatives of New England.

Supposing fuel, water power, and other appliances necessary for carrying on the work to be equal to other countries, it cannot be doubted by any that the southwest can, if she will, monopolize the manufacture of all the cotton which she will or can produce.

But the people of the southwest should not, nor will they be satisfied with a monopoly of the article of cotton. This region offers immense facilities for the rearing of sheep; there are large districts of country in the south that have hitherto been considered as useless, by reason of their sterility, these are admirably adapted to sheep husbandry. They are generally the most healthy parts of the country, and if encouragement were given to wool growing, the non-slave holding part of the population would be furnished with a most pleasant and profitable pursuit. The lands would cost little or nothing, and with almost no means at all, any individual could in a few years get up a respectable flock. This would enlarge the capacity of the country to sustain its increasing population, and keep within its limits a physical and moral power necessary for the preservation of the peculiar institutions of the south,—a policy that should never be lost sight of by the slave holder. But an inducement must be afforded before these non-slaveholders can be persuaded to embark in this—to them—new pursuit. They are a class of men who possess but little enterprize or foresight, they are not over-

fond of labor, and must be well convinced that they will be rewarded before they will agree to work.

The subject is one of sufficient importance to engage the attention of the Legislatures of the States, and if no better mode could be suggested we would submit the proposition of giving a bounty upon wool sufficient to stimulate its production. This, aided by a demand that would be created by the establishment of manufactures in the interior of the country, would give an impulse to this great branch of industry; one, in whatever light it may be considered, of the utmost importance to the country. This is a business that must necessarily have a small beginning, but sheep are of rapid growth and increase, and with proper encouragement, the growth and manufacture of wool would constitute a large item in the wealth and commerce of the country. It would very soon begin to stop the great drain upon us for coarse woollens, and blankets for negro clothing; these articles would be made with a view to the particular uses for which they were designed, and would therefore be better than those obtained from abroad.

The benefits to be derived by the non-slave holding part of the population would perhaps be of more importance than any other. By opening to them a profitable employment you give them the means of procuring wealth and moral respectability, and thereby raise up in the heart of the country a population which will be the pride and boast of the nation. Instead of emigrating out of your borders they will remain the physical and moral bulwark of southern institutions.

The same causes that favor the manufacture of cotton will bear upon the article of wool, but the south can never acquire the same monopoly in this as in the article of cotton. If, however, this district should prosecute the growing of wool to the extent of its capacity, and should only manufacture to the extent of its growth, the business would become of great importance, and would add much wealth to the community.

Iron is an article that abounds in many parts of the southwest, and is destined to constitute one of its great staples. Slave labor is peculiarly adapted to the production and manufacture of this article. The demand for iron is daily increasing throughout the civilized world, but in no part perhaps more than in the United States. It may be assumed that the system of internal improvements, by means of railways, will be adopted throughout the entire country; the demand for this object alone will be large, almost beyond calculation. The introduction of cotton, woollen and other manufactures, will also greatly increase the demand for iron. Add to these the increasing demand incident to the growth of the west for agricultural and other purposes, and it will be perceived that the

production and manufacture of iron is scarcely inferior to any other branch of industry, and it should be the policy of the south, without delay, to use every reasonable means for the encouragement and development of this great source of wealth.

Cotton, wool, and iron, may be regarded as the three great staples of the southwest. But there is so close a relation between these and many other branches of manufactures, that the establishment of any one or more of them upon an extensive scale would draw after them others, perhaps, not thought of in the beginning; thus not only affording employment to all the labor of the country, but imparting value to all the natural products of the land. The minerals, the streams, and the forests, would all be found to be the great sources of wealth, and the possessor of many a barren spot would be surprised at his good fortune. But of all the classes to be benefitted by such a change the agriculturist would come in for the largest share, and it is for them and their interests that these important changes are proposed. The country and its destiny is in their hands; they have at their disposal more ample means of producing wealth and for the promotion of human comfort than has ever been bestowed upon any other land or people. They have reached an important crisis in their own history, and it would be prudent that they should take a retrospective view of the past, and examine their present condition for the purpose of enabling them to form a just estimate of the future.

In looking into the history of the south and southwest since the earliest settlement, we find that the almost entire labor of the country has been applied to agriculture, and that the surplus products have been, up to within a few years past, almost entirely shipped to foreign markets. The country seems to have labored under the impression that wealth could be acquired only by drawing it from other countries. Acting upon this principle they have gone on from year to year producing cotton, tobacco, and grain, for exportation, until their best lands have become exhausted, and they find themselves as poor in all the appliances of comfort as they were many years past. The price of the crops being returned to the country in articles of daily consumption, the proceeds of each years crop is consumed without leaving anything to be added to the wealth of the community. And the only increase to be found in the elements or means to procure wealth, consists of the increase of slaves, an increase in no way connected with the exportation of produce, but would have been the same, or in all probability greater, if all the produce had been consumed at home.

If one unacquainted with the present condition of the southwest were told that the cotton-growing district alone had sold the crop for fifty millions of dollars per annum for the last twenty years, he would naturally conclude that this must be the richest community in the world. He might well imagine that the planters all dwell in palaces upon estates improved by every device of art, and that their most common utensils were made of the precious metals; that canals, turnpikes, railway, and every other improvement designed either for use or for ornament, abounded in every part of the lands, and that the want of money had never been felt or heard of in its limits. He would conclude that the most splendid edifices dedicated to the purposes of religion and learning were every where to be found, and that all the liberal arts had here found their reward and a home. But what would be his surprise when told that so far from dwelling in palaces, many of these planters dwell in habitations of the most primitive construction, and these so inartificially built as to be incapable of protecting the inmates from the winds and rains of heaven; that instead of any artistical improvement this rude dwelling was surrounded by cotton fields, or probably by fields exhausted, washed into gullies and abandoned; that instead of canals, the navigable streams remain unimproved, to the great detriment of transportation; that the common roads of the country were scarcely passable; that the edifices erected for the accommodation of learning and religion were frequently built of logs and covered with boards; and that the fine arts were but little encouraged or cared for. Upon receiving this information he would imagine that this was surely the country of misers,—that they had been hoarding up all the money of the world, to the great detriment of the balance of mankind. But his surprise would be greatly increased when informed that instead of being misers and hoarders of money, these people were generally scarce of it, and many of them embarrassed and bankrupt. Upon what principle could a stranger to the country account for this condition of things? How could he account for the expenditure of the enormous sum of one *billion of dollars* in the short space of twenty years? Indeed, I think it would puzzle the most observing individual in the country to account for so strange a result.

It is true that much has been paid for public lands within this period of twenty years, but the price of two crops would more than cover that account. The purchase of slaves and private lands should not be taken into the account, because the money paid for these should have remained in the country, except that portion paid for the slaves purchased

out of the cotton region, which is inconsiderable when compared to the number brought into it by emigrants ; and as to the natural increase of the slaves in the cotton region, that has no relation to the subject.

What, then, has become of the other nine hundred millions of dollars ? Much of it has been paid to the neighboring States for provisions, mules, horses, and implements of husbandry ; much has been paid for clothing and other articles of manufactures, all induced by the system of applying *all* or nearly all the labor of the country to the production of one staple only, and by neglecting the encouragement of manufactures. No mind can look back upon the history of this region for the last twenty years, and not feel convinced that the labor bestowed in cotton growing during that period has been a total loss to this part of the country. It is true that some of the neighboring States have been benefited to some extent, and it has served to swell the general commerce of the nation ; the manufacturer of the raw material has given employment to foreign capital and to foreign labor, and has also served to swell the volume of foreign commerce. But the country of its production has gained nothing, and lost much ;—it has lost much because it has not kept its relative position in the rapid march of improvement which marks the progress of other countries, and more than all, in the transportation of its *produce*, it has transported much of the productive and essential principles of the soil, which can never be returned, thereby sapping the very foundation of its wealth.

No country has ever acquired permanent wealth by exporting its unmanufactured products. And if any such case could be found in history the experience of the southwest would furnish satisfactory testimony that the exportation of the commodities produced here, tends rather to impoverish than to enrich the country. With the experience and the lights of the past before them it would seem to be madness to persevere in a course so detrimental to their interest. If when the prices of the leading staples were much better than they are likely to be for the future, and when the lands were more fertile and productive than now, this system proved unprofitable and ruinous, what hope is there that the result of the future will be better ? Nay, is it not quite certain that each succeeding year will accelerate the progressive deterioration until a state of irredeemable ruin will ensue ?

The time has arrived when this subject should be brought to the consideration of every individual in the country, and all the facts bearing upon it should be collected and stated with fidelity. If the legislatures will not move in this work, let societies be formed for the purpose of collecting facts, and collating them for public use. Let a survey and

census be taken of some of the older States, showing the quantity of land now in cultivation, compared to the quantity cultivated of some given period that has passed; the quantity of land that has been cultivated and now abandoned by reason of its exhaustion; the comparative productiveness of the soil now in cultivation, with the soil formerly cultivated, also the quantity of productive soil not cleared and brought into cultivation; and the capacity of the State to increase its productions, either of cotton or grain.

Let it be shown also what number of the inhabitants are non-slaveholders, and the prospects of this class in regard to their future condition in the country. Let facts be also collected in regard to the minerals, forests, water power, and the number of laborers that might be spared from the field without detriment to the agricultural pursuits. Add to this all proper facts connected with the cost of erecting buildings and the purchase of machinery for manufacturing both cotton and wool. Let the number of hands and the cost necessary to produce any given quantity of fabric be ascertained, and cause the whole, when properly and fairly digested, to be published in the most popular form, that they may be read by the whole community. Such a collection of facts would afford more light upon the subject of political-economy than all the books that have been written upon the subject from the time of Adam Smith, to the present day.

To the foregoing might be added another class of facts that would go far to explain what has become of a large portion of the money that has been earned by the labor of the south and southwest,—I mean those facts connected with the transportation of the raw material to a market, and the amount of the manufactures composed of that raw material, that has been returned to and consumed by the producer. This is a branch of the subject that should be carefully inquired into, and stated in terms that could be understood by all. It should be separated, if possible, from all political considerations, so that the mind of every individual may be free to act on it without prejudice. It is a self-evident proposition, that the transportation of an article adds nothing to its intrinsic value. Its volume, quality and properties remain the same as they were before the act of transportation. A barrel of flour or pork transported from New Orleans to Liverpool contains no more nutriment, nor can it contribute more to the support of human life and comfort in Liverpool than in New Orleans. Now it will be perceived that if this flour and pork should be consumed in Liverpool by one who is employed in the manufacture of cotton cloth, and this cloth should be sent to this country to be consumed by the cotton grower, and the cloth could have

been manufactured here with the same amount of labor as at Liverpool; then the whole of the time, labor, and capital employed in the transportation of the cotton, flour and pork to Liverpool, and the re-shipment of the cloth to this country is a clear loss, at least to the United States.

The only objection that can be raised to this proposition is predicated upon the assumption that the labor employed in the manufacture of the cloth in this country might have been more profitably employed in agriculture. So far from this being the case, however, the interest of the agriculturist would be promoted by withdrawing this labor from the field, and to that extent keeping down the over production of the raw material. The capital, skill, and labor employed in this transaction are not only lost to this country but to the whole human family; for as it has been shown that nothing has been produced by the operation, the volume of those things necessary to human comfort has in no way been increased. In making this assertion, we do not forget that those employed in this transportation have been supported by their labor, but this does not alter the case, for as their labors were unproductive, it would have been the same to the balance of the world if they had raised the amount by contribution from the producer and consumer of the articles transported. This is the great evil under which the southwest labors. She is yearly wearing out her soil in the production of one great staple, which has become ruinously low in price by reason of its great supply: she parts with this staple at prime cost, and purchases almost all her necessary appliances of comfort from abroad, not at prime cost, but burthened with the profits of merchants, the costs of transportation, duties, commissions, exchange, and numerous other charges, all of which go to support and enrich others at her expense. This is the true reason that she is growing poorer while the rest of the world is growing rich, for it is easy for the world to enrich itself from such a customer on such terms.

If she were wise she would cease to carry on a traffic in which she always has been and always must be a loser; she will set up for herself, and instead of parting with the products of all her labor to support the balance of the world, she will manufacture her own clothing, and not stopping at this, proceed to manufacture the whole of her crop, and thereby draw upon the world for a portion of her former losses.

If the proper statistical information could be obtained, we have no doubt but it would be found that the capital and labor expended by the southwest in the transportation of its cotton, and the return of the manufactured article for consumption within the last twenty years would

amount to a sum sufficient to erect buildings, purchase machinery, and put into successful operation a sufficient number of cotton mills to manufacture all the cotton that she grows.

Supposing the south should be convinced that she has hitherto pursued an erroneous and ruinous policy, and resolves to change, an important inquiry then arises in regard to the source from which the means can be obtained to enable her to introduce in a reasonable time the contemplated reform; upon this head it may be observed that a change in the policy of a country which involves so many important and vital considerations should be introduced gradually, so as to prevent sudden revulsions from taking place in the long established pursuits of the community. The beginning should be small, so as to prevent the outlay of too much capital at a time when it would be difficult to procure the requisite number of skilful operatives to make the investment profitable. But notwithstanding the change should be gradual, yet a well digested system of increase and enlargement should be adopted in the beginning, and never departed from.

Let such planters as are desirous of the introduction of manufactures instead of investing the nett income of their crops in land and slaves, appropriate it to the purposes of manufacturing, and by uniting the surplus means of a number together, an association might be formed with sufficient means to commence the work in every important district in a very short time. Instead of sending their young slaves to the field, send them to the cotton mill to be instructed as operatives. If such a course were adopted and adhered to, every year would add accelerated strength to the enterprise. The manufacturing establishments would soon begin to support themselves. Every year would bring an increase of operatives to the mills, and by adhering to a system like this a few years would insensibly produce a change that would astonish mankind, and this too without lessening the agricultural products of the country, or doing violence to any of the established pursuits of the community. By adopting a course like this the whole scheme could be carried out upon the means and resources of the southwest, the establishments would go into operation free from debt and incumbrance, and all the profits would belong to the country, free from the demands of foreign capitalists. Two hands employed in the mills could spin and weave the cotton produced by three, this would add about two hundred per cent. to its value, which would be a clear gain to the country. I assume it to be a clear gain, for the reason that I believe in a few years the cotton crop, in its raw state, would bring as much money to the planters and the country at large as it would have done providing this

system had not been introduced. It would, in time, be the means of affording a home market for all the cotton produced, this would make the market price more permanent and satisfactory; for the reason that the price would not depend upon and be influenced by so many contingencies as at present. The character of the crop, and the amount of stock on hand could always be estimated. This would, to a great extent, prevent the spirit of speculation which has so often prevailed in regard to the article of cotton, and which has ever been attended with most disastrous consequences. In a word, we should control the cotton trade of the world, and would have it in our power to establish the prices at rates that would always be remunerating to the producer of both the raw material and of the manufactured article.

In contemplating the results of these propositions, they appear more like air-built castles than substantial effects flowing from or produced by adequate causes. But at the risk of being pronounced a dreamer, we will take a glance at some of the results which may reasonably be expected from the introduction of manufactures into the south-west. And first of all, the value of the cotton in case it should all be manufactured in the country, will be increased at least two hundred per cent.; and instead of fifty millions of dollars, we shall produce annually one hundred and fifty millions, and if the crop should ever reach four and a half millions of bales, and the prices of the raw material and the manufactured articles should range as at present, the annual produce would amount to the enormous sum of three hundred millions of dollars per annum. Thus the article of cotton alone, to say nothing of other productions, would, to use a figurative expression, establish the centre of gravity for the commercial world in the south-west.

Instead of being drained of her substance by every other people, the current would be reversed; and wealth would flow into her coffers from all the nations of the earth; then indeed, her planters might dwell in castles, upon estates improved, and embellished by every device of art; the exhausted and abandoned fields would be reclaimed and redeemed from sterility; her swamps would be drained, and her rivers confined within their banks, with great advantage to the health of the country; the facilities of travelling and transportation would be improved and enlarged to an extent commensurate with the utmost demand; and the South and Southwest would become what by nature and the aid of art they are destined to be; the richest and fairest portion of the whole earth. But the benefits of such a change will not be confined to the South-West, every other part of the country will participate in her prosperity, and more especially the West, and North-West. This

mighty region which will ere long number fifty millions of human beings, must be most intimately connected with the southwest, whether in prosperity or adversity. The southwest is the legitimate market for the bread, provisions, and stock of this region. The northwest could be supplied at cheaper rates with all the articles of manufactures produced in the southwest, than she could be from either New England, or any foreign market; for this one reason if no other, that the transportation would be cheaper, and for the further reason that by purchasing in the market where she sold her own produce, much would be saved in the way of exchange and commissions.

It may be asked, where could a market be found for the enormous quantity of fabrics to be produced from four millions five hundred thousand bales of cotton. By reference to the ratio of the increase of population in the United States, it will be found that our population doubles in about twenty-four years; and assuming that we have twenty millions now, our population will amount to eighty millions in the year 1896; a period that will arrive within the lifetime of many men who are now thirty years of age. This increase of population will be quite equal to the increase in the growth of cotton; and we shall continue to have perhaps about the same quantity for exportation to foreign countries that we export at present; but this quantity being greatly increased in value by being manufactured, our external commerce in this article will be more than doubled, while our internal commerce will be enlarged almost beyond human conception; for the closest investigation cannot at present discover the many new sources of commerce, which will from time to time, develop themselves in a country so new, and so extensive as the United States, and especially the great western division.

In every point of view (save that it affords no revenue to the government) the internal commerce of the country is vastly more important than the external, or foreign commerce. The capital, labor, and skill employed in the transportation, belongs to the country, and constitutes a portion of its wealth; and the profits derived from the transportation, as well as the commissions and profits of the dealers in this commerce, all go to the support of our own citizens. By establishing manufactures in the country, a market will be afforded for many articles which from their perishable nature, or owing to their great weight or bulk, compared to their value, cannot become the objects of a foreign or distant commerce. Many articles of this class would be found profitable to the producer, and highly convenient and useful to the consumer. But at present for want of a demand, this source of employment, comfort and wealth is lost to the country.

In this class of products may be mentioned the products of the forest, summer fruits, hay, potatoes, and many other articles produced at a considerable distance from towns and navigable streams. Every manufacturing establishment would open a new market and become the centre of a commercial circle; and by changing these perishable and heavy articles by the process of consumption and reproduction into a more permanent and valuable form, they would be made suitable to enter into a more distant commerce. And thus employment would be given to labor, and all the means of comfort and of wealth would be produced in districts hitherto lying waste and unproductive. In a government like ours in form, extending over so large a country, a country so strongly marked and divided by its physical conformation, and diversity of climate, it is of great importance that every encouragement should be given to internal commerce. By promoting this great interest, the local and provincial prejudices, always so liable to grow up between districts having but little intercourse are prevented. Each portion of the country will be made to feel its dependence upon the other; a community of interest will be established, and a general sympathy pervade the whole nation as one family. Thus our political institutions will be greatly strengthened, and many of the causes which have hitherto disturbed the harmony of the country will cease. Our population will become more Americanized. In throwing off our dependence upon other countries for the supply of our physical wants, we shall become more independent in our manners and modes of thinking, and the same great causes which give us the control of the commerce of the world, will enable us to impress upon other nations our manners and customs. The spirit and philosophy of our political institutions will follow our commerce wherever it prevails; and more than all, under the guidance of providence we shall through the agency of our supremacy in foreign commerce, do much to establish the christian religion throughout the earth.

Possessing a territory extending from the Atlantic to the Pacific, with Europe and Africa on the east and south-east, and Asia and Australia on the west and south-west, and our coasting trade from east to west, passing all around South America, we occupy a position upon the globe, which plainly indicates our superior advantages over all other nations of the earth. But these advantages must be cultivated and improved, or they will not be available in giving to our country that proud pre-eminence over all others, that she is capable of attaining. The first step towards the attainment of this object is the encouragement of manufactures; by which means we shall not only render our-

selves independent of all other countries for the supply of most of our wants, but we shall soon begin to afford large supplies to other nations. In using the term *encouragement*, I have no reference to that kind of encouragement which may be given by the acts of the general Government by a protective tariff; that branch of the subject belongs to the statesman; and with him I desire to leave it. But I mean that kind of encouragement which it is in the power of the people to give, simply by a division of labor. This is the great principle which lies at the foundation of the whole subject. Experience shows that every agricultural product that can be successfully produced in the United States, can be increased far beyond the demand; this in time reduces the prices so low that it checks the production; and the demand for labor being also checked, much labor is thrown out of employment; and it has been the case for many years, that there has been an over production of all the leading staples at the same time, leaving in the country very many individuals without adequate and constant employment. This is a great evil; it is not only a source of individual suffering, but greatly endangers the safety and morals of society.

From my own observation, I am satisfied that within the scope of my acquaintance, I have perceived more unhappiness arising from the want of constant and profitable employment, for five years past, than from all other causes put together. If the pursuits of the country were sufficiently diversified this evil would be removed. It is not in the power of the laborer who is out of employment to introduce new pursuits; he is destitute of the means to enable him to do so. But when it is discovered in any district of country that from over-production the leading pursuits fail to remunerate the labor engaged in them, some other pursuit should be introduced to an extent that would relieve the established pursuits from over-production. This could be effected throughout the country by the formation of agricultural societies in every county, whose duty it should be to collect all proper information connected with the labor and products of the country, and whenever it was ascertained that any pursuit was becoming unprofitable by over-production or other causes, it should be their further duty to procure information in regard to a substitute, and when a substitute should be selected and adopted, the means should be raised to aid in its introduction. In this way a great variety of employments would in time be established, greatly to the benefit and advantage of the whole community. By this means many new sources of employment and wealth would be discovered and developed, and more permanency would be imparted to the standard value of the old established pursuits; and revulsions would consequently become less frequent.

Such is the nature of the *encouragement* required for the introduction of manufactures and a division of labor ; it is that kind of encouragement which is derived from the sympathy and countenance of society ; for without this encouragement, nothing short of great capital and indomitable industry and perseverance will secure success to any new enterprise. The community must first be enlightened upon the subject ; the public mind must be convinced by facts and arguments, and old prejudices removed, before it can be brought to sympathise with any scheme which proposes a change in the established pursuits of the community. There is a spirit of conservatism in business, as well as in morals and politics, which is ever upon the watch, and prompt to condemn every innovation ; and wo ! to him against whose projects these conservatists prophecy. They have much pride of opinion, and if they predict a failure they will labor to sustain their judgement by every means short of violence. Success would implicate their judgement and foresight, and consequently they have something at risk ; they denominate the innovator a castle-builder wanting in judgement, and pronounce his schemes visionary and impracticable. By such practices the unfortunate projector is brought into disrepute ; he loses the confidence of the community, and without great pecuniary and moral resources he must fail ; and with his failure the cause in which he engages is injured.

Let it not be said that prophecy has ceased. There are many prophets in the land, whose predictions a wise man will not disregard ; for they prophecy evil, and set themselves at work to produce the result. Hence the importance of preparing the way for the introduction of manufactures by enlightening the public mind by every practicable means. The public prints are not sufficient ; the living minds of the people must be brought to act upon each other by and through the agency of associations : and without this no sympathy can be diffused among them upon this great subject, and no concert of action can be effected.

Before the public mind can be prepared for the encouragement of manufactures in the southwest, it must be taught a new system of private and political economy. Under the present system the opinion generally prevails that nothing but money constitutes wealth ; and many seem to suppose that the best test of prosperity is indicated by the gross sum for which the crop is sold, with but little reference to the cost of its production. In all my acquaintance, I have met with very few planters who estimated the depreciation of their soil as anything in the cost of producing a crop, notwithstanding they were every few

years compelled to purchase land to supply the place of that which they had worn out. Those who act upon this system rarely ever do anything to improve their land; are unwilling to appropriate sufficient labor to the production of a sufficient supply of grain and provisions; and never doubt the proposition that if they can buy an article cheaper than they can make it, that it would be great folly to produce it themselves. This proposition appears plausible in theory, and might be true perhaps, if the true cost of producing the article could be correctly calculated; as well as the inconvenience of procuring a supply from abroad, and the detriment to business arising from the want of an abundant and constant supply, with many other considerations which are rarely brought into the estimate. But however plausible the theory may appear, it is quite certain that it is deceptive and unsound; or the calculations of the cost of producing, and purchasing the supply, are not correctly made. For except in some peculiar locations, and under peculiar circumstances, experience has proven that the system is almost universally ruinous in practice. This is a strong illustration of the necessity of a division of labor, even upon a single plantation. For the application of all the labor of the plantation to the production of one staple, is a violation of this principle, which seems to be a law of nature governing all her works.

The variety of soil, of climate, of mountain and plain; and in fine the great variety of human capacity and of human wants, all indicate the observance of this principle. And when civilized man shall cease to observe it, he must return to his primitive state of barbarism; and even then he cannot exist, without in some degree conforming his pursuits to this principle. Labor is man's destiny upon earth; none can escape from it in some form or other; nor have they the moral right to do so. Neither have any part of the human family the natural right to appropriate to themselves more than their share, to the exclusion of others.

By a law of man's nature, a certain amount of bodily exercise is made necessary to the development of his faculties, and the enjoyment and preservation of health. This exercise was not intended to be wasted in unprofitable pursuits; but was designed to be appropriated to the production of things useful to human comfort, and to the improvement of man's condition. It is only by such an appropriation, that civilized man has emerged from a state of barbarism; and by such means only, can a state of civilization be sustained; for when that requisite quantum of human exercise which is necessary to sustain health, shall be wasted or thrown away upon unprofitable objects, the advance of civilization must not only be checked, but it must suffer decay, in a ratio

commensurate with the waste and misapplication of human exercise. Although man was undoubtedly designed, and constituted for a state of civilization. it is nevertheless an artificial state, and must be governed by human laws; and among other civil rights it is most clear that the laborer should be protected in the enjoyment of his honest acquisitions.

It is also clear that for the purpose of defining and securing civil rights, that the natural wealth, consisting of the soil, the forests, minerals, &c., should be appropriated, and become the objects of individual property and control. By keeping these propositions in view, we must perceive that in time, as the population of a country increases, and new generations spring up, a portion of the people must be destitute of either natural or artificial wealth, and are necessarily dependent on those who possess the wealth of the country for employment and support. Now, if we suppose that all the established and known peasants of the country are fully supplied with labor, and no more can be admitted without endangering the means of existence to those already employed, then that portion of the population who are so unfortunate as to be out of employment, must starve or emigrate; and thus a limit would be fixed to the increase of population. This is not a mere hypothesis, for history affords many instances in point. This result can be prevented as long as new pursuits can be introduced that will reward the laborer with the means of subsistence. If, in such a case, a part of the corn produced was sent to another country to buy clothing, and this clothing could be made by the surplus and unemployed labourers at home, it is quite plain that such a change would afford relief to the extent of the corn thus retained in the country. Or, if a country in such a condition procured corn from abroad by the exchange of its manufactures, which were produced to the full extent of the demand, if some other article of manufacture could be produced, which could be exchanged for corn, this would likewise afford relief to the extent which such manufacture could be exchanged. In this case it will be perceived that the principle upon which the relief is founded, is the withdrawing of the employment of foreign labour, and increasing the demand at home by the introduction of new pursuits. By thus dividing the labour of a community, and diversifying the pursuits, provision may be made for an almost indefinite amount of population. And the conclusion naturally follows, that the more divided and diversified the pursuits, the more diversified will be the intelligence of a community; for every new pursuit brings with it the science or knowledge connected with it, thus redeeming the laboring classes from ignorance, as well as from poverty.

This is an important consideration in a government like ours, which

is founded upon the intelligence and virtue of the people ; these constitute not only the basis, but the superstruction also ; these are improvable qualifications ; and with proper culture and encouragement may be perpetuated throughout all time, and so long may our free institutions abide. But suffer these to fall into decay and the republican government of the United States must cease to exist, except in history, where it will be pointed out as a splendid failure in an effort made by a few philanthropists to redeem man from ignorance and tyranny.

The foregoing views have been more particularly applied to the Atlantic and Gulf States, which may be denominated the cotton region ; but in their general application, they are intended for the whole of the slave holding district of the Union. Kentucky, Tennessee, Arkansas and Missouri may be denominated the provision and iron region of the southwest. From the character of their climate and soil, their agricultural pursuits are more varied ; they cannot be said to have any decided and fixed staple, except in some small districts, and consequently as their population increases, they will more naturally diversify their pursuits. Situated between the south and the north, their location is a most happy one for the distribution of their great leading products ; and when our population shall reach eighty or a hundred millions, as it must before the present generation shall all have passed away, the middle states will become the richest and most interesting portion of the Union ; the great internal commerce of the Union will find its centre here, and cities and markets will be established, equalling, and perhaps surpassing those situated upon the sea coast. Besides the article of provisions, this region will be able to produce and manufacture the articles of iron, hemp and tobacco cheaper than they can be any where else produced ; and by reason of advantage of location, these articles can be distributed in every direction as from a common centre, with less cost of transportation to the consumer. Here likewise will centre the arts and refinements of civilization, which will give the distinctive tone and coloring to the American character. Such predictions may appear rash to many, but before they are condemned as visionary and false, I respectfully invite an attentive examination of the map of the United States, with a careful enquiry into the natural resources of each and every state and territory east of the Rocky mountains. After such an examination, let it be imagined that the valley of the Mississippi, including Texas, contains a population of one hundred millions, and that two-fifths of this population is situate west of the Mississippi river, and I think it will be admitted that the eastern cities can no longer control the commerce and finances of this mighty region ; and this is a state of things

not so remote but that many now living may realise it, for in seventy years from this time, if our population should continue to increase at a ratio equal to the seventy years past, it will reach over one hundred and fifty millions. Such is the destiny that awaits the southwest, if her population should have the foresight and wisdom to improve the means that nature and her peculiar institutions have placed in her power. But if she blindly adheres to her old system of applying all her labor to the production of but one, or a few articles; thereby exhausting her natural wealth and receiving nothing that is substantial and permanent in its stead; she must lose all the advantages of her position and of her vast resources, and the eastern states must continue to increase their manufactures until they shall monopolise both the raw material and the fabric. And thus, the absurd system of transporting the raw material to a great distance, at a great expense, to get it manufactured, will be perpetuated. And a bushel of corn grown in the west for ten cents, must continue to be sent to the east at the cost of from thirty to forty cents, to feed the operatives; and after giving employment to the eastern population, and paying a large profit on eastern capital, and to eastern merchants, the manufactured article will be returned to the west, charged with transportation and other expenses, to be consumed and paid for in part with corn at ten cents per bushel, and other western produce at corresponding prices. The whole process is so absurd and preposterous when fairly stated, that we can scarcely believe in its present existence, although the whole country is engaged in carrying it on every day.

There is another consideration connected with the perpetuation of this system. As the lands become more and more exhausted in the older and more northern parts of the slave-holding districts, slave labor will become less and less valuable; it will therefore press south and southwest, and their places will be filled by white laborers, thus insensibly narrowing the limits of the slave district, until the whole of this population will be crowded into a comparatively small area in the extreme south. This result of all others should be avoided if possible by the slave holders; for it would in every way tend to lessen the value of their property, and would sooner or later verify the prediction of the eccentric statesman of Roanoke, that instead of the slaves running away from the master, the master would run away from his slaves. As the country fills up with a more crowded population in the non-slave holding states, free labor by degrees will press upon the northern limits of the slave holding states, and gain a footing within its borders. This will be a different race from the southern non-slave holder; these will

be people who are enured to habits of industry and enterprise ; they will bring the means to purchase the worn out fields, and they will go to work to restore them to fertility by their own industry and skill ; they will not use slave labor, and all the land thus purchased and occupied, will be so much taken from the occupation of slaves ; for it may be safely assumed that when the slaves have once progressed south, they will never return to the north again.

This process has already commenced, and some of the northern counties of Virginia are beginning to attract the attention of their northern neighbors, whose settlement here will no doubt be beneficial to this particular district. But if this emigration should become considerable, it must in time greatly effect the value of slave property in the south.

Thus I have endeavored to suggest to the public mind, such arguments as have occurred to me upon this important subject. I have endeavored to show, that the agricultural system hitherto pursued in the south and southwest, has proved ruinous to the country by exhausting the soil, and thereby rendering it every year, less and less capable of producing the appliances of human want and of human comfort ; and that it has a tendency to divide the population into two classes, widely differing from each other in many important respects ; that to these and other causes, must be assigned the reason of the small increase of the population of the older southern states for the ten years preceding the year 1840 ; and the great want of education among the poorer classes. On the other hand, I have endeavored to show some of the effects which may be expected from the introduction of manufactures into the southwest ; among which I have supposed that the moral condition of the people would be improved, and that by diversifying the employments of the country, the means of human comfort would be greatly increased, and that all classes of the population would share in these benefits ; that the value of the exports would be greatly enlarged by the process of manufacturing, and that instead of a constant drain from the country of the products of all its labor and soil, that wealth would flow into it from every part of the world. I have called the attention of the south and southwest to the rapid increase of labor in this region, and the necessity of finding profitable employment for it ; and have taken the liberty of suggesting a plan of introducing manufactures by degrees as well for the purpose of preventing a shock to the established pursuits of the country, as to avoid the creation of a state of indebtedness. These with various other topics I have desired to impress upon the mind of the people of the southwest. Many of these topics

are no doubt familiar to many ; nor could they be otherwise to those who reside in the country ; but we sometimes become familiarized with evils until we cease to observe them, and in such cases a friendly suggestion may be useful. My principle object in this essay, has been to arrest the attention of the people of the southwest, and to invite them to the consideration of a subject intimately connected with their prosperity. My conclusions may not in every instance be correct, and although they would seem to be fair deductions from the facts stated, yet the unforeseen events and changes which time alone can reveal, may produce results very different from those which I have supposed. Be this as it may, the amelioration of the condition of the human family is among the great duties of man, and to promote this object we are called to act upon the lights before us ; we are not permitted to penetrate the future, and to predict with certainty, the result of any human policy. Nevertheless, it is our duty to march onward, guided by the lights of reason and experience, trusting the events to an overruling providence.

If this humble effort should in any way be the means of directing the attention of the people of the southwest to the subject of manufacturing, and of inducing them to examine the several topics which I have endeavored to present for their consideration, I trust that individuals possessing more capacity, as well as more time and means for procuring correct information, will take the matter in hand, and afford to the country the benefit of their talents and observation. It will be in the power of such individuals to confer a lasting benefit upon the country, and place their names among those of its benefactors.

ART. II.—GEOLOGY OF THE MISSISSIPPI VALLEY.*

FIRST PERIOD.—GENERAL INUNDATION.

"In the beginning God created the heavens and the earth,
And the Spirit of God was moving upon the face of the waters."

GENESIS.

1. DURING this period the briny ocean covers the whole Valley of the Mississippi, and the United States, rising over 4,000 feet above the Cumberland, or Wascioto Mountains, and 5,000 feet above the limestone region of Kentucky and Illinois. The Oregon and Mexican mountains alone rise above the waters in North America.

* Continued from February Number Commercial Review, p. 124.

2. The ocean gradually decreases by the decomposition and the consolidation of the waters in the formation of rocks and in the deposition of *strata*. The rate of this decrease can only be conjectural, and is in point of time immaterial. "The ocean subsides to 3,000 feet" above its present level.

3. The parallel strata are formed in the following order, or nearly, viz: 1. Lime stone. 2. Slate. 3. Sand stone. 4. Free stone. 5. Grit. 6. Pebble stone. They are not always superincumbent, nor co-existent, but are generally horizontal, except the four last toward the Cumberland mountains, which having probably a granite *nucleus*, have compelled the incumbent *strata* to become obliquial, or slightly inclined from ten to thirty degrees.

4. By the operation of sub-marine volcanoes, the *strata* of coal, clay and amygdaloid are formed and intermixed at various intermittent times with the above *strata*.

5. Several mineral, such as flints, quartz, calcedony, onyx, ovulites, marls, barytes, iron, lead, pyrites, &c., are successively formed and embedded, or alternated with the pro-eminent strata.

6. *Creation of Sea Animals*, such as fishes, shells, polyps, &c. The exuvia of many pelagrie animals become buried under or within the strata, where they are found at this time. They belong, principally, to the genera of *terebratula*, *gonotrema*, *orthocera*, *encrinites*, *pentremites*, *astrea*, *millipera*, *cyclorites*, *mastrema*, *favosites*, &c.

SECOND PERIOD.—EMERSION OF MOUNTAINS.

1. "The primitive ocean recedes or subsides to the level of *fifteen hundred feet* above the present ocean. The Alleghany, Laurel, and Cumberland ranges of mountains, in the shape of three long islands, are elevated from five hundred to one thousand feet above the ocean. Other peaks and knobs east and west of the Cumberland island, rise to the height of three or four hundred feet above the ocean, forming an archipelago. On the west, at the distance of nearly eight hundred miles, the ocean is bounded by a shore for two thousand miles in extent, surmounted by lofty ranges of naked sand hills rising in the distance to the height of nearly two thousand feet. These were the present elevated black hills which stretch east of the Rocky Mountains, and terminate in the immense sandy plains extending five hundred miles eastward from the mountain base. At this time the heavy tides and the copious rains furrow these new lands and form valleys through the soft sandy strata, while around the eastern archipelago the schistose formation proceeds under water.

"2. *Vegetation begins*; grass and reeds grow; springs appear; streams begin to flow and gradually increase in length as the land extends, but decreases in volume and depth by the gradual excavation of the valleys."

Scholium.—During this period, the Missouri river may have advanced its channel to the vicinity of the "Great Bend," above the White Earth river, and nearly a thousand miles below the mouth of the Yellow Stone. The Platte and the Kansas may have extended their channels each a thousand miles to their confluence with the ocean, near the present western limit of the State of Missouri; the Arkansas and Red River may each have advanced their deep gorges nearly one thousand miles to the same recipient, in the vicinity of the western boundary of the present Indian territory. At the same time the isolated mountains of "James' Peak," "Long's Peak," and "Pike's Peak," each towered nearly eight thousand feet above the waters. At this period the Mississippi river, even to its source in Itasca Lake, had no existence, its very fountain heads being covered by the ocean.

During this period also, vast marine eruptions, salses and up-heav-ings were in active progress in the northern parts of Canada, with strong ocean currents sweeping towards the south, by which the great abysses of Lakes Superior, Michigan, Huron, and the Georgian Bay, were excavated, and the fragments of rock and commingled earths disgorged from the bowels of the earth, were swept by ocean currents towards the south and west, spreading the granite boulders over all the regions south of Lakes Michigan, Erie and Ontario, and depositing the drift formation over Ohio, Indiana, Illinois, and westward to the Missouri river, gradually terminating on the south in the tertiary formation which extends southward to Natchez and Baton Rouge, bearing in its commingled deposits the carcasses and skeletons of the enormous denizens of the first green earth of a former northern world.*

* A great portion of the level country west and south of Lake Michigan as well as south of Lakes Erie and Ontario, and also westward to the Mississippi, presents a drift formation composed of earth, sand, comminuted shale and gravel, underlaid by a deep stratum of rounded pebble stones and coarse gravel of limestone, quartz, granite, etc., reposing upon limestone rock strata. And this strata in Illinois is chiefly fossiliferous limestone, especially nearest the surface. The prairies south and east of Lake Michigan are strewn with innumerable large and small granite boulders, either imbedded on the surface or buried beneath. The same soil formation exists over a large portion of the State of Missouri, of Wisconsin and Iowa Territories, and as far south as Tennessee. The tertiary formation begins in Missouri and extends through a portion of Arkansas and Louisiana, and the southern portions of Mississippi and Alabama.

Such may have been the condition of this portion of the Mississippi Valley when the fountains of the "great deep," nearer the arctic regions "were broken up" and chaotic fragments and the plastic earths were swept towards the equator.

THIRD PERIOD: EMERSION OF THE TABLE LANDS.—"There is a *further diminution or recession of the sea*, until its level is reduced to *eleven hundred feet* above its present level, when all the table lands and high lands of the secondary formation become uncovered.

2. *An inland or fresh water sea remains*, over the limestone basin of the Ohio, and covers parts of the states of Ohio, Indiana, and Kentucky, below the mouth of the Scioto. This sea is bounded on the south and west by Muldraugh's Hill, which is the actual ascent to the table lands of Kentucky, and on the east by the Knob-hills of Kentucky and Ohio, and on the north by the Silver Hills of Indiana.

3. Another inland sea, or bay, fills the present basin of the Cumberland river, bounded on the north by the Green River hills, and on the south by the Cumberland mountains, but open to the west where it unites with the great inland sea which extended three hundred miles west of the present channel of the Mississippi.

4. The upper Cumberland sea is drained, and the Cumberland river flows from its upper valley to its "falls," near which it empties into the Gulf of Cumberland.

5. The Allegheny river flows into the limestone sea below the present mouth of the Monongahela, and forms a narrow strait, extending to the great inland sea below the Silver Hills of Indiana.

6. Green River forms its upper valley, so does the Kentucky, Salt river and Licking river. All these streams and their branches excavate deep vallies through the half-indurated strata.

7. The knobs are formed like downs on the shores of the limestone sea; Muldraugh's Hill is shaped like a wall by the currents, being formed chiefly of slate schist.

8. Sea animals are still living in the limestone sea, and their exuvia become imbedded in the last limestone schist.

9. *The creation of land animals*; insects, reptiles, birds, and quadrupeds on dry land.

10. *Vegetation increases*; a thin soil is formed; trees and shrubs begin to grow, and form forests. These succeed the mosses, reeds, grasses, and maritime plants produced in the second period."

Scholium.—During this period the highest table lands and ridges near the sources of the Allegheny river, as well as the undulatory regions of western Pennsylvania, and the northeastern portions of Ohio,

and the dividing ridges which give rise to all the streams flowing northwardly to the great lakes and southwardly to the upper Mississippi, were from one to three hundred feet above water; the Alleghany and Monongahela discharged separately into the limestone sea, in the vicinity of the present city of Pittsburg; the Ohio river had no separate existence; the upper Mississippi may have opened its channel for about 900 miles to its confluence with the limestone sea, near the present Falls of St. Anthony. The Missouri may have extended its valley channel to the limestone sea in the vicinity of Council Bluffs; the Arkansas may have advanced its course not less than 1500 miles to its confluence with the limestone sea, west of the present state of Arkansas.

Lake Erie, Huron, and Michigan had no separate existence, being alike beneath the surface of the general ocean. Lake Superior may have possessed a separate outline of more than double its present extent, and having its surface only sixty or one hundred feet above its most elevated highlands. At the same time all the larger tributaries of the upper Mississippi had opened channels from one to three hundred miles in length.

FOURTH PERIOD: DRAINING OF THE LIMESTONE SEA.—“1. The level of the primitive ocean has gradually subsided to about *seven hundred* feet above the present level. The limestone region in the valley of the Ohio, Cumberland, Tennessee, and upper Mississippi rivers are mostly drained, but are full of marshes, muddy swamps, licks, and marl salses, &c. The Ohio river, as, also, its larger tributaries, the Kentucky, Licking, Cumberland, and Tennessee, excavate their vallies through the soft muddy lime strata which become indurated after a long lapse of time.”

2. The plains and glades of the Cumberland gulf are drained, and the sea recedes west to the alluvial gravel hills formed under water, between the present Cumberland and Tennessee vallies.

3. The alluvions and bottoms begin to form in the vallies and gulfs, by the attrition of the strata and soil conveyed and deposited by the streams.

4. *Animals and plants increase and spread*; the *sea animals* become gradually *extinct*; while the *land animals multiply* their individuals and species.

5. Some ponds and small lakes are left over the land: the sinks and caves of the limestone region are formed. A soil is formed by the decomposition of *strata* and the decay of vegetable substances.

6. *The creation of mankind* in Eden, in the highlands of Asia.

Adam, or Admo, or Adimo (first man) and Eve or Evah, life, were the parents of the primitive or antediluvian nation, called the Adamites.

"7. This *fourth period* answers, therefore, to the *sixth day*, or period of the general creation : the first and second periods of creation having produced the light, suns, stars, planets, and the earth, with her primitive crystallized mountains, rising from ten to thirty thousand feet above the present ocean, besides the burning mountains, volcanoes," &c.

Scholium.—At the same time the Mississippi river may have advanced its channel, and excavated its valley through the soft *strata* as far as the Des Moines river. The Missouri, advancing its channel nearly a thousand miles from the Great Bend, may have excavated its valley as far as the western limits of the present state of Missouri, having received the confluence of the Platte and Kansas from the west. The Arkansas may have excavated its deep valley as far as the highlands near Little Rock, while its turbid floods were depositing beyond its mouth the alluvial matters which now constitute the Pine Bluffs, thirty miles below Little Rock.

The northern portions of the States of Mississippi and Louisiana at this time may have emerged from the waters to the elevation of one or two hundred feet, giving origin to the sources of the Yazoo and Tombigbee, Black Warrior and Cahaba, and to the head streams of the Washita, St. Francis and White-River. At the same time Lakes Superior, Huron and Erie assume their present outline, while Lake Michigan presents no definite shape, being continuous with the inland sea, which still occupied the lower valley of the Mississippi, and covered the Illinois valley. Lake Ontario is concealed beneath the general ocean.

During this period we may presume the rivers and water-courses flowing from the higher regions continued to deepen and extend their channels, sometimes excavating deep mountain gorges by the constant operation of running water and the disintegration of the rock strata, aided by the combined operation of heat and cold.

FIFTH PERIOD.—NOAH'S FLOOD.

"1. This is the great flood of Noah, Nuh or Nahu, in the eastern continent, and which may have reached America, but it has left no traces of any such violent convulsion in the valley of the Mississippi. The organic and human remains buried in the soil are all in gradual depositions.

"2. In the valley of the Mississippi, the ocean, which we suppose yet remained over the southern or lower portion of it, now subsides gradually to *three hundred feet* above its present level, and forever

abandons the upper valley, forming merely a gulf in the lower valley or delta of the Mississippi.

3. The great northern sea of North America, which had included all the lakes, and had extended from the upper Mississippi to the Gulf of St. Lawrence, is gradually drained. The upper lakes receive their present forms; Ontario appears; and the *Niagara cataracts* commence.

4. South of the upper valley, the Gulf stream which covered the lower valley, deposited the alluvial ground extending from Louisiana to New York.

5. All the valleys of rivers, and their principal tributaries, receive their present shape.

6. The *strata begin to consolidate*; the ponds and marshes decrease, but *salses* or muddy volcanoes increase; vegetation overspreads the soil, and animals multiply; earthquakes are frequent, and some strata are deranged by them."

SIXTH PERIOD.—PELEG'S FLOOD.

"And his name was called Peleg, for in these days the earth was divided."

GENESIS.

"1. Great volcanic eruptions of the sea, in Europe, America and other places, with awful earthquakes, convulsing the Atlantic Ocean, the West Indies, Mediterranean and other seas, destroying many countries and nations of men."

Scholium.—The remains and indications of these awful volcanic disturbances are abundant throughout Europe and America. They are predominant in all the coast and islands east and south of the Mexican Gulf and the Carribean Sea; and also in eastern Pennsylvania, Virginia and in the southern portion of Europe. *Salses* existed in the sea which covered the southern half of Mississippi and Louisiana, and extended as far as the central portion of the present State of Arkansas, where a principal volcanic vent existed, as may now be seen in the volcanic formations distributed in the hills of Arkansas upon the head waters of the Washita, and near the Hot Springs. At this time the underlying gravel strata in Mississippi and Arkansas were thrown to the surface through the sand and loam strata, where it is still exposed on the elevated hills and knobs.

"2. The ocean acquires its present level, and the American continent its present shape.

"3. The strata become indurated rock; the soil becomes firm and solid; lakes disappear; springs diminish; streams decrease in volume; and evaporation being less extensive, rains become less heavy and overwhelming.

Scholium.—During the previous periods, all the elevated portions of the valley which first emerged from the waters under the action of the deluges of rain which prevailed during the period of the drainage and consolidation of the strata were deeply furrowed and excavated by enormous floods, until deep gorges and wide valleys were often excavated near the sources of rivers.

“4. *Huge animals* ramble over the soil, of monstrous shapes and aptitudes; such as the Mammoths or Mastodons, enormous Elephants, Megalonyxes, Megatheria, (great bears,) Elks, Buffaloes, Jaguars, &c. Some of them becoming extinct, have left their bones in great numbers near the salt licks, such as Big-bone Lick, Drennon's Lick, and many other places within the limestone region of Kentucky, Tennessee and Missouri, whence they remain buried in mud or ancient alluvions.”

Scholium.—The same kind of enormous fossil remains are found in similar tertiary formations and alluvial deposits throughout the Mississippi valley, from near Council Bluffs, on the Missouri, to the ancient alluvions of Mississippi, and Louisiana; and throughout the great delta, at elevations varying from 800 feet above the Gulf of Mexico, to the alluvions of Attackapas not 20 feet above tide.

During this period the whole valley south of the mouth of the Ohio emerges from beneath the waters; the united floods of the upper Mississippi, Missouri, and Ohio rivers advance and open the reservoir channel, a thousand miles further to the receding ocean; and swallowing in its course, the tributary floods of the Arkansas, Red River and Yazoo, each of which, with other smaller streams, extend their channels to their confluence with the common reservoir.

Since this epoch, the alluvial deposits carried down by the Mississippi may have filled up the shoal water near the sea shore, and formed all the lands which are now formed south of the last bluffs near Baton Rouge on the east, and those of Avoyelles and Oppelousas on the west.

Such are the probable revolutions and physical changes in North America, by which the great valley of the Mississippi has been formed, and has received its present condition and surface. In the fullness of time Columbus appeared, and America smiled.

America may possibly be a *new* continent, when compared with the eastern hemisphere; but for untold ages it has been subject to those great physical changes, which we have briefly sketched. These are changes which have been progressing for geological ages, and which in a greater or less degree will continue to operate until time shall be no more.

The records of history may point to a small portion only of these

changes, which have been effected during the annals of the human race ; but the science of modern geology, the records of God himself, indicate the vast and awful revolutions which have taken place before man was installed the lord of creation.

It may not be irrelevant to enumerate a few of the changes which are known to have taken place in other portions of the globe since man became the recorder of his own history.

The Caspian sea has receded from the extensive plains along its northern shore.* The Baltic has retired from the marshy plains of Prussia, near its southern coast. The Red sea has retired from the plains of Zehema in Arabia, and the village of Moosa, the former sea-port of Mocha, in less than five centuries has been left by the sea at the distance of five hours travel, or nearly twenty miles. The Nile has encroached upon the Mediterranean, and pushed forward its *delta*, not less than fifty miles within the records of history. The island of Tyre has been joined to the main land, by a hand more mighty than Alexander's. The Meander has filled up the bay into which it once discharged its waters, forming a fine alluvial valley gained from the sea.† Many islands in the Grecian Archipelago have changed their shores and made new connexions. The town of Adria, once a sea-port, from which the Adriatic takes its name, is now nearly twenty miles from the sea shore.‡ Ravenna, almost in modern times, when the seat of the Western Empire, was a sea-port with a fine harbor. This harbor is now filled up, and beautiful fields extend three miles, from the site of the former city to the sea shore. The site of the ancient city of Ephesus is now indicated only by its ruins, which are separated from the sea by a marsh three miles in extent ; the Ceyster has filled up its former fine harbor. Other gradual changes of equal importance, have taken place in the western portion of the European coast.

On the other hand, the sea has made many encroachments upon the land. Waters have burst forth from the bowels of the earth : cities, towns, and whole districts of country have been sunk and overwhelmed. The Zuyder Zee was once a small lake, discharging its waters by the river Flevum, of Tacitus, or the more modern Ulic. But, about the year 1250, the sea made an irruption into it, and vast tracks of land were sunk, forming the present Zuyder Zee, which is nearly three hundred miles in circuit. The Gulf of Dollart, in Prussia, was a fer-

* Vide Malte Brun's Universal Geology, vol. I, p. 441 to 446.

† Vide Crichton's History of Arabia, vol. 2, p. 133.

‡ Malte Brun, vol. I, p. 442-3.

tile and populous canton, covered with delightful meadows and cheerful hamlets, as late as the thirteenth century.

The sudden and gradual changes thus produced in the relative condition of land and water, upon the seashore may be illustrated by the following extract from an Arabian allegory of the thirteenth century.* The allegorical personage is *Khidz*.

He discourses as follows, viz: "I passed one day by a very ancient and wonderfully populous city, and inquired of one of its inhabitants, how long since it had been founded? 'It is indeed a mighty city,' replied he, 'we know not how long it has existed; and on that subject our ancestors were as ignorant as ourselves.' Five centuries afterwards, as I passed by the same place, I could not perceive the slightest vestige of the city. I demanded of a peasant who was gathering herbs on its former site, how long it had been destroyed? 'In sooth, a strange question!' said he, 'the ground here has never been different from what you behold it now.' Was there not of old, said I, a splendid city here? 'Never, answered he, so far as we have seen, and never did our fathers speak of any such to us.' On my return there, five hundred years afterward, I found the *sea in the same place*, and upon its shores was a party of fishermen, of whom I inquired how long that land had been covered by the waters? 'Is that a question, said they, for a man like you? This spot has always been what it is now.' I again returned five hundred years afterward, and the sea had disappeared. I inquired of a man who stood upon the spot, how long since this change had taken place, and he gave me the same answer I had received before. Lastly, on coming back again after an equal lapse of time, I found a flourishing city, more populous and more rich in beautiful buildings, than the city I had seen the first time, and in the distance was seen the city of the dead, with its tombs, monuments and mausoleums rising over the ashes of departed generations until it vied in extent and splendor with the living city; and when I would fain have informed myself concerning its origin, the inhabitants answered, 'We are ignorant how long it has existed, the origin is lost in a remote antiquity, and our fathers on this subject were as ignorant as ourselves.'"

Such is the allegorical illustration, which opens to our view the successive revolutions, that may have preceded the present condition of any portion of the habitable earth.

I shall conclude this subject with a few remarks relative to the pros-

* A Ms. codice entitled "Wonders of Nature," by Mohammed Kazwina. See Lyall's principles of Geology, vol. 1, p. 36.

pective rank which this region is destined to hold in the scale of population, wealth and commerce. Only a few years since, and this immense and fertile region was almost uninhabited, except the river coast, for one hundred miles above and below New Orleans, and a few isolated settlements more remote.

A large portion of the delta was considered an immense useless waste of inundated lands, unexplored and uninhabitable, except by the indigenous beasts and amphibious monsters. Now it is known to be an immense region of fertile alluvion, adapted to the sustenance of a dense population, and the production of all the necessities; and most of the luxuries of civilized life. It is rapidly peopling with numerous bands of hardy and enterprising pioneers, who are daily employed in exploring every unknown recess, every bayou and lake, with a zeal and industry unexampled in history. It does not require the spirit of prophecy to foretell, that in less than half a century the valley of the Mississippi will be the Egypt of North America.

Art. III.—THE LOUISIANA OUACHITA REGION.*

THE historical sketch of that part of Louisiana known by the name of Ouachita, cannot be expected to be of any very great interest, independent of that which results from its relation to our general history. It is circumscribed within narrow limits, and up to the time when the first Spanish commandant was sent by his government to form a post out of the few scattered inhabitants whose sole occupation and pursuits were hunting, there exists no written record relative. For its earliest settlement by Europeans, resource must be had to oral tradition, which, correct as it may be, necessarily leaves much to be desired for certainty and accuracy.

When the French first located in Louisiana and at Natchez, it appears that a settlement of some importance was formed by them on the shores of Lake Louis, within the tract of country now known by the name of Sicily Island, in the parish of Cataoula. There have been and are now, occasionally, found French axes and other tools, cannon balls, and even mill-stones, all evidently of French manufacture. According

* This contribution was prepared for the purpose of being read before the Louisiana Historical Society, and by their invitation. It is published for general information, and in order to stimulate, if possible, similar efforts from other parts of the State. Service such as this our country must ever appreciate.

to a dim tradition confirming the inference, it is very probable that this settlement was made by the French, and one of the earliest made by them in the country; it appears to have been abandoned when the massacre by the Natchez Indians took place.

There can be but little doubt of the knowledge those early settlers had acquired of the Ouachita river and of the land in its valley; the names given to some prairies and bayous seem to indicate it, such as Prairie De Lay, Prairie du Manoir, Prairie Chatelrau, Bayou de Siard, etc. No appearances exist, however, of their having then settled on the banks of the Ouachita, though they might have visited that country during their hunting excursions.

A few years before a permanent *post* was established by the Spanish government, the country was thinly inhabited by hunters and their families; they were mostly Canadians and Louisianans, from Point Coupée and other settlements on the banks of the Mississippi; a few Spaniards were scattered among them. They could not be called cultivators of the soil, small fields of Indian corn (maize) being the utmost extent of their agricultural pursuit.

In the year 1781 or 1782, John Filhial was the first commandant appointed by the Spanish government, sent up expressly to form a settlement, establish a *Post*, etc., at the most suitable place on the Ouachita river, and collect there and in its immediate neighborhood, the families scattered over the land. He settled, at his arrival, near a place called Ecore à Fabri, now Cambden, in the State of Arkansas, distant two hundred and twenty miles from and above Monroe. After having remained there four or five years endeavoring to gather around him a few families of hunters, he came down to Monroe, where he permanently settled and established the *Post* of Ouachita, to which he gave the name of Fort Miro. That spot being in a very eligible situation on the banks of the river, it was before known to the hunters as Prairie des Canot, it being their common rendezvous, from which they dispersed in search of game, then extremely abundant, and returned to descend to New Orleans, where they found a ready market for their peltry, bear oil, tallow, and even the buffalo meat, which was known in the city by the name of Viande de Chasse. The last buffalo seen in the neighborhood of Fort Miro was killed in 1803. A herd of about one hundred and fifty remained near the Bayou Saline, in Arkansas, about one hundred and fifty miles above Monroe, where, being surrounded with settlements, they were all destroyed in 1807 and 1808.

The territorial limits of the jurisdiction of the commandant of the Post of Ouachita were not precisely ascertained or defined,—a matter of

small importance when the population was so thin that the country could hardly be said to be inhabited, and was well entitled to the appellation of wilderness. That jurisdiction was, however, claimed, and some time exercised over part of the now State of Arkansas, as far as the Hot Springs near the Ouachita river, distant about four hundred miles from Fort Miro, and over what now forms the parishes of Union, Morehouse, Carroll, Ouachita, Franklin, Jackson, and part of the parishes of Madison, Tensas, Catahoula and Claiborne.

Besides the first settlement at Fort Miro, there were four or five families, French, who inhabited the banks of the Ouachita river, about sixty or seventy miles below that fort at a place called *Prairie du Manoir* and *Prairie Brin d'Amour*, subsequently named the lower settlements, now in the parish of Caldwell. At the mouth of Little river, situated where that stream uniting with the Ouachita and the Tensas rivers, forms what is called Black river, but which is in fact a continuation of the Ouachita, a solitary settler, a European French, kept a valuable ferry, on the main route through which great numbers of horses and mules passed on their way to the banks of the Mississippi in search of a market. From that ferry to the Father of Rivers, the country was a desert.

The population of Ouachita can hardly be said to have increased until the years 1795 to 1797, when the Baron de Bastrop introduced several families according to his contract with the Spanish government. These were Irish, Germans, and some French families who came with the Marquis de Maison Rouge under a contract nearly similar to the one with Baron de Bastrop, alluded to before. Since Louisiana became a member of the Union, the number of the inhabitants of Ouchita has greatly increased; it is now, 1847, three times as large within the present very narrow limits of the Parish, as when under the Spanish government it covered the area of ten fold its present size, and included the parishes before named, which have successively been detached from it.

The large Spanish grants of land in this section of the State, although designed to forward the settlement of the country, have effectually retarded its progress. Had those grants been public lands, or the validity of their titles been decided on as early it might have been done, the greatest part of the arable lands would have been cultivated ere this, and the population and wealth of the country proportionally increased.

The Agricultural pursuits of the first settlers were, as stated before, extremely limited; as the population increased, and the reward of the toils and labor of the chase diminished in proportion to the yearly di-

minution and the further removal of the wild inhabitants of the forest, the cultivator of the soil gradually replaced the hunter. The first cotton planted was in 1800; the first gin built in 1801 and 1802. The quantity exported did not exceed from 100 to 500 bales until 1809 or 1810. It was greatly augmented from the time when that most important of modern inventions, the application of the power of steam to navigation, rendered the exportation of the products of the soil so much cheaper and easier. At present about six thousand bales are made within the narrow limits of the parish of Ouachita, and the whole extent of country formerly enclosed within its old boundaries yields probably more than one fourth part of the cotton raised in the whole State; for it includes a large portion of the best land, in the climate the best adapted to the culture of that great staple of the South.

When this country was first settled by Europeans, there were no Indians claiming a right to the soil; none but parties of hunters of the Choctaw, Arkansas or Caddo nations were met with; no fields or patches of corn, no wigwams were to be seen, nothing but the rude camps of the hunters were occasionally discovered in the forest.

About fifty families of the Choctaw nation had, however, obtained permission from the Spanish government to settle on the hills about 20 miles west of Fort Miro: they left that place, yet known as the Indian Village, upwards of twenty years ago.

No doubt, however, can exist but many years, nay, centuries before this country was known to Europeans, some Indian nation had inhabited it. The great number of mounds, *tumuli*, met with in so many different situations, from which are dug out Indian pottery, human bones, places it beyond the possibility of a doubt. Some of these mounds are much higher than those far more numerous which appear to have been made for their habitation, and were most abundant in prairies, where they seem to have been placed with some attempt at regularity. The largest mounds vary from fifty to one hundred feet high.

One of the largest is at the mouth of Little River, called by the Indians Etac-oulow, or River of the Great Spirit, which has been changed, or rather crippled, into Cataoula, the present name of the parish through which it runs. Might it not be inferred from this *quasi-tradition* that these high mounds were temples similar to the *Theocalis* of the Astecs, and the small ones the houses or huts of those extinct aborigines, built of mud and earth, which time easily reduced to their present shape, and that the unknown nations which inhabited this country before the present races occupied it, had some affinity in their customs and religious rites with the ancient Mexicans.

NOTE BY THE EDITOR.—The Ouachita region of Louisiana includes that portion of the State for the most part which is northward of Red River. Many parishes have been established out of it, one of which has taken the same name. In relation to the Ouachita river, we take the following from Judge Martin :

The Ouachita has its source in the territory of Arkansas, in the Rocky Mountains. In the vicinity of its head waters are found the celebrated warm springs. It runs almost parallel with the Mississippi. At the mouth of the Tensas, Little river or Catahoula river, arrives from the west. The Ouachita, running between the two, takes their additional supply at the same place, in its course, but there loses its name : from this place to its junction with the Red River, during a meandering course of about sixty miles, it assumes the name of Black river, an appellation probably derived from the colour of the soil through which it runs ; the fertility of which often induced emigrants to settle on its banks : but they are too low, very few years elapse without seeing them inundated ; they are now deserted. Many bayous empty their waters into Black river, all rising in the Mississippi swamp, and at high water communicating with that noble stream. The largest is bayou Crocodile, which comes out of lake Concordia ; when its current is considerable, the largest kind of canoes have navigated it to Black river.

The Ouachita is navigable for steamboats of any burthen during six or eight months in the year, as far as the town of Monroe, a distance of about two hundred and forty miles from its mouth, or as it is there called, the mouth of Black river. Steamboats of upwards of one hundred and fifty tons have ascended it more than two hundred miles above Monroe. From its mouth to the Mississippi, the banks of Red river are low, and during high water offer nothing to the eye but an immense sea covered with forests.

The plains of the Ouachita lie on its east side, and sloping from the bank, are inundated in the rear by the Mississippi. In certain great floods, the water has advanced so far as to be ready to pour into the Ouachita over its margin.

On approaching towards bayou Lowes, which the Ouachita receives from the right, a little below its first rapid there is a great deal of high land on both sides of the river, producing the long leaved pine.

At the foot of the rapids the navigation is obstructed by beds of gravelly sand ; above the first rapid is a high ridge of primitive earth, studded with abundance of fragments of rocks or stone which appear to have been thrown up to the surface in a very irregular manner. The stone is of a very friable nature, some of it having the appearance of indurated clay ; the rest is blackish from exposure to the air ; within, it is of a greyish white. It is said that the strata in the hill are regular and might afford good grinding stones.

On the west part of the river, lies a considerable tract of land, granted in 1795 by the Baron de Carondelet to the Marquis of Maison Rouge, a French emigrant who proposed to bring into Louisiana, thirty families from his country, who were to descend the Ohio for the purpose of forming an establishment, on the banks of the Ouachita, designed principally for the culture of wheat and the manufacture of flour.

This tract was two leagues in width, and twelve in length, traversed by the river.

The town of Monroe stands on the side of the Ouachita, and at high water is approached by large steamboats; but the navigation is interrupted during a great part of the year by many shoals and rapids. The general width of the river to the town is from eighty to one hundred yards. Its banks present very little appearance of alluvial soil, but furnish an infinite number of beautiful landscapes.

A substance is found along the river side nearly resembling mineral coal; its appearance is that of the carbonated wood described by Kirwan. It does not easily burn, but being applied to the flame of a candle, it sensibly increases it, and yields a faint smell resembling that of gum lac, or common sealing wax.

Soft, friable stone is common, and great quantities of gravel and sand are upon the beach: on several parts of the shore a redish clay appears in the strata of the banks, much indurated and blackened by exposure to light and air.

The land above the town is not very inviting, the soil being poor and covered with pine wood.

About thirty-six miles higher up, is bayou Barthelemy, on the right. Here begins Baron de Bastrop's grant of land, by the Baron de Carondelet in 1795, obtained nearly on the same terms as that of the Marquis de Maison Rouge; It is a square of four leagues on each side; containing about one million of acres.

Art. IV.—ON THE CRYSTALIZATION OF SUGAR.

In the art of sugar making, no part of the various processes now in use among us, attracts more general interest than that of crystalization. This is the key-stone of the arch, upon the perfection of which the whole work depends, but towards which very little research seems to have been given. Not unmindful of the importance of the proper classification and evaporation of the cane-juice, both of which operations are equally essential to be well performed, we come to the concluding act in sugar making, with more of anxiety for its success than perhaps any preceding. Upon the size, quality, and color of the grain, depend its marketable value. By its appearance only is it known elsewhere than where made, and it is carried from the plantation to the markets at large where no endorsement of its character will enhance its value.

Certain qualities are attached to the two great varieties of sugar, the large grain and the small; that each is hard or soft, dry or moist, and moreover its affinity for moisture, upon which depends its durabil-

ity, and to one great consumer, the Refiner, its intrinsic value for re-crystalization.

Pure sugar is white and inodorous, and its solid forms somewhat variable, are generally cubes with dihedral summits, but the use of vacuum, evaporators of different shapes has recently been discovered to have a definite influence upon the shape of the crystals, and remains a phenomenon of the manufacture yet unexplained, concerning which no satisfactory theory has been advanced. The purity of the saccharine however, seems in this respect to be independent, but it is doubtful if the crystals are as permanent in any other shape as in cubes. Under primary examination of the chemist by the famous instrument of Dr. Wallaston, the goniometer, the purity of the crystals of sugar, therefore, cannot be obtained, and the researches of science hitherto, have produced no test for their value but the effects of their destruction in the common operation of fermentation. But as an ordinary rule, we discover that the strongest and best sugars are those which approach most nearly to the form of perfect cubes of sharp angles, hard and not readily soluble in water of low temperature. Weak sugars of minute crystals are soft, breaking easily by compression, have rounded surfaces, and chiefly without angles, moist, and readily soluble.

On plantation, the crystalization as to its result, is found to depend primarily on the quality of the juice; secondly on the treatment it receives. In sour juice, or frosted canes, the saccharine is known to be destroyed. Fermentation, the first stage of change, is the progress of a certain portion of sugar into its watery and gaseous constituents, which is not within the order of nature, or the power of art to restore. The peculiar influence to produce change which the points of congelation and ebullition in the scale of temperature possess, is very little comprehended, and will ever remain a mystery to be solved only when the atomical construction of the universe shall be further explored. The theory of atoms, the doctrines of chemical affinity, attraction and cohesion, are but unsatisfactory solutions of the phenomena of forms—and last of all, the polarization of atoms, which apparently affords explanation, is as yet a pathless field of research, of whose existence the world has but recently learned. The changes of form, to which all matter is subject, are exceedingly various, and create surprise to observe how few are permanent. The evolution or combination of gasses, may give rise to a liquid or a solid; and these apparent elements so pure, take new form, arrayed in color. No uniform relation has hitherto been traced between the color of a compound and that of its elements. Iodine whose vapor is of a violet hue, forms a beautiful red compound

with mercury, and a yellow one with lead. The brown oxide of copper gives rise to green and blue colored salts; while the salts of the oxide of lead which is itself yellow, are for the most part colorless. The color of the precipitates becomes therefore a very important consideration. In the crystals of sugar, the color does not reside in the body of the crystals, but is well known to be entirely superficial, and capable of being washed away with the loss of a small portion of the substance; so that sugar of large grain is the best adapted by its extended surfaces to be thus cleansed, is brighter and clearer, and therefore most desirable to the refiner.

The actual phenomenon of atomical combination suggests the idea of peculiar attachments and aversions subsisting between different bodies, and it was in this figurative sense that the term "affinity" was first applied by Boerhaave to a property of matter. A specific attraction between different kinds of matter, must be admitted as the cause of combination, and this attraction is conveniently distinguished as chemical affinity. Atomical adhesion, the force by which solid bodies generally retain their forms, depends on a parallelism of arrangement of particles as we can most distinctly observe in the fracture of the metals, iron, zinc and copper; all of which present a chrysaline structure as perfect as the largest stalactite or basalt. In other instances the same force is beautifully exhibited by the adhesion of two plane surfaces of *like* material, such as lead or even glass, which can be so pressed together as to form perfect identity, and be incapable of separation without exposure of entirely new surfaces. But the property of water to adhere to solid surfaces and to wet them, unequalled by any other liquid; the diffusion of a drop of oil on the surface of water, or its most intimate mechanical admixture from which by rest it so readily resumes the previous arrangement of its particles, all prove that if attraction is the given law, its action depends on the peculiar position of matter when it is brought into operation.

Atomical affinity is dependent upon temperature and the close proximity of the particles, and at the same time the purity of contact. The temperature at which chrysalization takes place or is destroyed, does not produce chemical change to which bodies are liable in some instances by the temperatures at which they freeze or boil. Chrysalization, as in the case of the metallic salts, binds bodies of different nature together, and is often made use of by the chemist as a method of refining his manufactures, and herein is found the need of pure elements, and the absolute necessity of positive contact atomically. This is beautifully illustrated in the manufacture of sulphuret of copper, the primitives

of which must be essentially free from foreign ingredients, and require the force of trituration to bring about their combination. Affinity is thus gradually produced, and by degrees the sulphur and copper lose their characteristic appearance, give out large portions of their latent heat, and become a new body of different properties from its constituents.

We behold matter existing in three different and dissimilar states : solid, liquid and gaseous, and find that no body is restricted to any one of these forms, but that it depends entirely upon temperature, and it is always at the same temperature, other circumstances alike, that changes of form are produced. The first effect of heat, then, on the state of bodies, is the conversion of solids into liquids or gases ; heat is the cause of fluidity. In observing the phenomena of caloric, we are too apt to regard the temperature of ebullition or evaporation overcoming the resistance of the atmosphere as the starting point, when on the contrary we should rather take the point of congelation or chrystalization, and if possible, consider all bodies as solids. Those which we regard by habit as liquids, such as water, milk, wine and oil, will then appear as crystals or solids, and we can better fix the value of their heat, and carry forward our comparisons ; water, if pure, becomes a solid at 32° , milk at 30° , olive oil at 36° , sugar at 238° , but all varying according to their purity and freedom from extraneous matter, as well as atmospheric pressure. Water charged with chloride of sodium or common salt to saturation, crystalizes at the reduced temperature of eighteen degrees, and then imperfectly. We also find that a perfect syrup of sugar is prevented from crystalization by the pressure of lime, potash, or especially the metallic salts, which are sometimes used to precipitate its albumen, by way of clarification, and that these substances should be neutralized when used, is within the experience of all who have experimented in sugar making.

The imperfect combination of crystals, which takes place in both the case of the brine and the impure sugar, has the effect to produce in the crystals of each product a peculiar affinity for moisture, and a ready deliquescence with small increase of temperature. The full effect of atmospheric pressure on fluids at the point of crystalization, as a power to increase their atomical attraction, and aid the polarity of arrangement, has been very imperfectly appreciated until of late years. The vacuum-pan for boiling sugar, relieves the contained fluid of pressure, and thus produces a free action of the two forces which effect crystalization, atomical attraction governed by polarity ; and the arrangement

of particles having taken place to a more or less perfect extent by their continuance in the vacuum, their permanent position is perfected by the discharge from the pan, thus subjecting the incipient crystals to the pressure of the atmosphere, producing more intimate contact and perfect union of surfaces.

The same has been proved by the application of pressure in a dry way. Experiments made in London some years ago by Barton, and more recently in New York by a practical operator, with the most powerful hydraulic press in the country, compressing low quality of sugar having minute grain, go to show an increase of size in crystals by this forced contact of surfaces, and explode the false notion that the grain is destroyed or reduced. Moreover, the product thus obtained was drier and less liable to deliquescenties than that which had been subjected to the ordinary method of syruping to free it from molasses. The sugar placed in bags and subjected to the press, exuded its thickest molasses at first, which gradually grew thinner until it ceased to run. Then appeared the vegetable albumen in little particles resembling fish-roe, unctuous to the touch, insoluble in water or alcohol, and progressing rapidly to fermentation with its small quantity of saccharine. The sugar falls from the bags in dry hard lumps of improved chrystaline appearance, and so brilliant as to make the motes of dirt very conspicuous.

This process of purification from molasses has latterly been made to operate well in conjunction with the melter method of clarification first performed, by which the surface of the sugar may be skimmed of floating impurities, and the sediment withdrawn from the bottom, as is well known to all sugar workers.

The crystals of sugar formed after the process of thorough clarification, most rapid evaporation, and this performed at the lowest temperature and atmospheric pressure, at the time when the chrystaline arrangement of particles is taking place, is found to produce a sugar richest in saccharine, of most perfect and durable crystals, and yielding less molasses while in the cooling. Boiling in vacuo before the arrangement for crystalization takes place, does not appear to be essential to the product, and how much impediment it may be to perfect clarification cannot be said.

Art. V.—THE CRESCENT CITY.

—“The trade and profit of the city
Consisteth of all nations.”

IN the present number of the Review, our readers will find an engraving executed by Shields & Hammond, of the **QUEEN CITY OF THE SOUTH** as she is viewed from an opposite point of the river, in all life and animation—all grace and attractiveness. Let us meet with the liberal support that we have, or the increased one we anticipate, and similar engravings of every city of the south and west will be furnished from time to time, and ultimately perhaps of the whole Union, accompanied with sketches, historical, statistical, descriptive, &c. Engraved portraits too of our eminent practical citizens may be expected, as we trace their busy and useful lives and gather wisdom out of their checkered experience. Should nothing unforeseen occur, the April number will contain a finely executed sketch of the Balize and the country contiguous as it is presented to view on the approach from the ocean. It will be taken for us from a painting now at the Balize.

But in relation to the subject before us—the City—we would occupy a few pages here as we have occupied over and over again pages in the past. It is so fruitful a theme—so full of interest—so likely to excite enthusiasm and to warm up the fancies of the veriest sleeper, that one may safely approach and touch it. Poetry and plain matter of fact appear to have harmonized for once and blended into an attractive union. Shall we regard the sluggish old “ocean stream,” which is winding by us, laving our levee, leviathan like, in its pathway to the great deep? It has been working its way onward that old river, farther than our fancy may trace it,—through all climes and lands and peoples—from where its remote source, a sleeping lake, deep set in impenetrable shades, on mountain heights, beyond all haunts of civilized life, mirrors savage and unchased beast,—it has worked itself on, “father of all waters,” among mountains—

“Where rolls the Oregon, and hears no sound
Save his own dashings”

through glades, over crags and precipices—now gaining breadth, now tapering and constrained again, then rushing impetuously forward,—here showing limpidly a pebbled bottom, there deepened and frowned upon by heights, rising upon heights, rugged and snow capped—onward, gaining in strength and in vigor, as kindred waters meet and blend and sweep on together, leaving the savage, the intractable forests

and its inmates, to be cheered by sounds of busy nations of toiling men as the ocean nears at last.

Shall we regard the metropolis which the picture shows in the distance? Does it not carry us back to times long past and memories of them we would not, no never, lose. There were classic days then, when all hearted and chivalrous Frank, struggled with the savage and won a home amid wastes and wildernesses here, and cherished in his dreams fond visions of success so hardly and so seldom won. Bienville, Iberville, D'Abadie, Baron of Carondelet, or even further still, La Salle! Venerated names—ye have struggled here—your toils, your defeats and your triumphs—but where are ye now?

Let the gloomier times of Spanish domination come. We see O'Reilly in military power high over all,—an armed soldiery to crush a feigned rebellion. O'Reilly magistrate, the noble sons of Louisiana are victims of his tyranny; O'Reilly law-giver, the province changes its institutes and its forms, and the customs of Paris yield to the statutes of Alphonso; a new government but not a new people. These times too are all past.

And they the relics of those times; the antiquated structures which ruin has not wholly seized from us; there are such here; we would not change them, rude peasant cabins though they be. Cathedral or chapel of unclassic architecture, no matter, old Time has marked and associated his incidents with them all.

But these are panoramic scenes and picture hurries picture on. The First Consul, Bonaparte, trafficking for Louisiana, his policy had gained but his power could not hold. Jefferson in fierce strife of hostile parties; Wilkinson and Claiborne and Burr and Livingston, and that man of iron who won immortal honor at Chalmette; our population so blended, native and foreign—all the earth represented; our commerce growing beyond comparison. Is there no incident or romance in all of this?

Such is New Orleans as full fledged fancy flies; but there are those who see it not thus—men afar off, with opaque glass, discerning nought but marsh and miasma, drear abodes of vice and discomfort, blackened warehouses and mired ways. Let them come here and we will point them to the old river and to the levee, to the old city and the new, to structures which want no magnificence, to quays which know no rest, and they will warm with us in the scenes we will show them ere they leave again.

But pardon reader what has been random wandering. We are not

inextricably lost and return with no great reluctance to plain sober matter of fact which after all is more sensible.

Whatever we thought could interest in relation to this city, its history, its commerce, its life, manners, statistics, etc., as our numbers were issued, we published during the last fifteen months, and there is abundance for reflection in what we have published. Little on this head remains at this moment, but the subject grows and is not likely to be exhausted soon.

At all events, having perused the lately published works of Mr. Gayarré, we noted some things of which their is but little general knowledge, and which we doubt not, if translated, would be deemed acceptable any where. What we have in mind are the allusions to the early days of the city, the site of which, it would appear, was not much regarded at first, except by that wonderfully sagacious man Bienville. We introduce a passage.

Bienville wished, 1719, to remove the seat of government to the banks of the Mississippi, on the present site of New Orleans, at the place to which fifty men had been sent the preceding year, for clearing the ground, but was opposed by the officers who shared the command with him, and who were sustained by the commissary, Gen. Hubert, as well as by the directors of the company. A considerable rise of the river which covered the land, the advantages of which were being discussed, determined for a moment the question. The adversaries of the project of Bienville gave as a reason, that the colony had not the the necessary means of erecting the dykes with which it would be necessary to surround this settlement. Hubert wished the seat of government to be established at Natchez. L'Archebault Villardo and Legas, whose views were rather commercial than agricultural, did not wish to leave the shore of the sea, and recommended the east coast of the Bay of Biloxi. This opinion prevailing, a detachment was sent there to build houses and barracks. This place was called New Biloxi to distinguish it from the first settlement, which was afterwards called Old Biloxi.*

Three years after this, 1722, Bienville being then at Mobile, wrote to the ministry, complaining of the position at Biloxi, and showing the advantage of one selected on the Mississippi river. We translate this despatch.

"I have had the honor of giving the Council information by my last letters, as to the entrance of the river, and of assuring it that

* Hist. Louis. par Chas. Gayarré.

vessels drawing less than thirteen feet of water can enter, full sail, without touching, and that it will not be difficult to make the pass practicable for larger vessels as the bottom is soft and moving. I would have commenced operations there before, if the engineers specially charged with such work had been of the same opinion; but they are occupied altogether with those of Biloxi, which I believe we will be obliged to abandon. If we continue to make our discharges there, the settlement of the colony will be retarded, and we must make great outlays on account of the distance from Ship Island, which is five leagues from the main land where we are settled. We are obliged in order to discharge the vessels, to send out lighters, which on their return cannot approach the land nearer than three-quarters of a league. Then we must send out boats to discharge these lighters, and these boats are grounded a rifle-shot from the shore. The Council will thereby know of what importance it will be for all the vessels from France to enter the river, where they may be discharged in two days. I have sent thither two ships, one of three hundred, and the other of four hundred tons, and they have gone in full sail. I would have done the same with others which have just arrived, if precise orders had not been given for discharging these vessels at Biloxi.*

In the year 1760 the following was a faithful picture of the most important part of the city, the public structures, etc. :

The situation of the public buildings at this time—1760—was as follows: The old Barracks were between Royal and Bourbon, Toulouse and St. Louis streets. The old Government House occupied the ground now comprised between Customhouse and Royal streets. Chartres street stopped at Bienville street, and lead to the Government House. The new Government House, in 1760, was at the corner of St. Louis and Levee, towards Toulouse, and took up about one-third of the square, but its front on St. Louis street took up one-half of the square. At the opposite corner was the Intendance. The present Hospital street, or Bayou road, came no nearer to the river than Royal street, where it ended in the Army Hospital, which extended to Quartier, Ursuline, Levee and Royal.—2d vol.

From a very eccentric volume published some years ago, which, with not a little that is wild and whimsical, contains much that is sensible and interesting, we take the liberty of transcribing a page or two. The pictures which will be given are truly drawn, and so far as w

* Hist. Louis. 1.

give them may be relied upon. With the extracts the reader will permit us to retire. And first we have an introduction to the city:

"By whatever route the traveller approaches New Orleans, whether by the river, the sea or lake, the feature which first attracts his attention is its Levee, where one may meet with the products and the people of every country in any way connected with commerce than its upper or most southern extremity.

"Levee is a French word, of primary importance within the State of Louisiana: it pervades its statute-book and is daily heard within its halls of justice. 'There is little or no land,' says Judge Porter 'on the banks of the river, within this State, if we except an inconsiderable quantity in the neighborhood of, and above Baton Rouge, which would not be covered with the waters of the Mississippi in the Spring months, were it not for the artificial embankment which the industry of man has raised to exclude them.' Thus the Dutch are not the only people who have won their domain from the watery element. The State of Louisiana, when we consider its recent existence, the paucity of its population, and that population sparsely scattered over a large extent of country, has done more than Holland: yet we overlook the wonder which lies at our own door, to lose ourselves in admiration of the not greater wonder three thousand miles off.

"The traveller from the North as he touches the region of the orange and cane, of smiling plantations, bounded in the back-ground by dense forests, and stretching onward to a seemingly illimitable extent towards the South, and looks down upon the planter's mansion, the cluster of white cottages hard by, the slave at his daily task, and the mounted overseer, as one would look down from a balcony upon the busy street below, appears first to be made conscious that the Mississippi, the father of waters, the receivers of so many mighty rivers, is here, near the close of its course, where its stream is most rapid, controlled by the puny hand of man—that the ocean-stream upon whose bosom he is floating, here restricted, hemmed in, and directed, sweeps down to the sea over an artificial ridge, and that he is passing through a huge aqueduct, which raises the dweller upon water above the dweller upon land! Here the waves do indeed bound beneath him as a steed that knows his rider, yet the traveller sees, admires, and forgets. But if he forgets *the whole*, he cannot forget *the part*: when once seen, once remarked, he cannot forget *the Levee* of New Orleans, the storehouse of the great Valley of the Mississippi, the receptacle of the products of a hundred climes, of a country extending from the frigid to the torrid zone, illimitable in resources as almost illimitable in extent; the goal of a thousand steamboats, and of more than a thousand merchantmen; the exchange, the place of purchase, of sale, and of barter; the huckster's shop, the news-room, and the Prado of the greatest exporting city in the world."

We have the following graphic sketch of the Levee and of the scenes constantly presented upon it:

"The Levee of New Orleans is one continued landing-place or quay, four miles in extent, and of an average breadth of one hundred feet. It is fifteen feet above low water mark, or that stage of the river when its waters retire wholly within their natural bed; and six feet above the level of the city to which it is graduated by an easy descent. Like the river it margins, it holds a serpentine course, advancing or receding, as the Mississippi encroaches upon the city, or falls off towards the opposite bank. It is constructed of *deposits*, a rich alluvion swept from the north, and held in suspension by the waters of the Mississippi until their rapidity is checked by a sudden change of direction, or, swollen to overflowing, they spread over the adjacent swamps, again to retire, and again to bless the land they have visited with an increase of soil. The deposit is so great, and the consequent formation of new land so rapid, immediately in front of that portion of the quay which is most used for the purposes of commerce, that it has within a few years become necessary to build piled wharves, jutting out from fifty to one hundred feet into the river. The new formation, which is governed as to its locality, by what may well be termed the freaks of the Mississippi, is called "batture;" and when it has progressed to such an extent as to be left bare by the retiring water at its lowest stage, is held capable of ownership: a sort of property which has given birth to an indefinite amount of long continued, intricate, and vexatious litigation, dating from the first appearance of the late Edward Livingston in the courts of Louisiana up to the present moment."

The flatboat commerce of the city is thus portrayed:

"And here one may see what New Orleans was before the application of steam to navigation. Hundreds of long, narrow, black, dirty-looking, crocodile-like rafts lie sluggishly, without moorings, upon the soft batture, and pour out their contents upon the quay: a heterogeneous compound of the products of the Upper Mississippi and its tributaries. These rafts or flatboats, as they are technically called, are covered with a raised work of scantling, giving them the appearance of long, narrow cabins, built for the purpose of habitation, but designed to protect from the weather, a cargo often of the value of from three to fifteen thousand dollars. They are guided by an oar at the stern, aided with an occasional dip of two huge pieces of timber, which move on either side like fins, and float with the stream at a rate of three miles the hour. Such was the carriage of the products of the up-country twenty years ago! their number has not been diminished by the introduction of the steamboat. It is, indeed, a natural, simple, and cheap mode of transportation; and as long as the Mississippi passes with such rapidity from its source to its embouchure in the gulf, the traveller will meet with these unsightly masses floating on its bosom, swayed to and fro by its currents, counter-currents, and eddies, often shifting end for end, like some species of shell-fish, and not unfrequently, like the crab, preferring the oblique to the forward movement. Yet hundreds are at times sunk by sudden squalls, and of the many freighted in the up-country, perhaps not more than two-thirds ever reach New Orleans. The insurance offices look upon them as very unsafe bottoms.

"Of the many which lie before me, grounded upon the batture, some are filled with fat cattle, whose lowing discourses eloquently of the distant pastures of the north. The States of Kentucky, Indiana, Illinois, Missouri, Arkansas and Louisiana, and the Republic of Texas, annually send more than twenty thousand head of horned cattle to this market. Arkansas, Missouri and Texas raise numerous herds, which run wild over their extensive prairies, and are tamed and caught with salt. Kentucky, with greater progress in the arts of husbandry, pastures and stalls its beef, which, consequently bears off the palm for size, condition and general excellence. Others are freighted with horses, mules, and sheep; corn in sacks or in bulk, and upon the cob—a method of transportation which has its advantages, what is lost in stowage being gained in protection from must and rot.

"Here is a boat stowed with apples, inferior enough in quality, cider, cheese, potatoes, butter, chickens, lard, hay—coarse, the rank growth of a virgin soil—all offered for sale, in the mass or by the lot. Pork, alive, in bulk, in barrels, fresh, salted, smoked, of all sizes and conditions; the corn-fed fatness of Ohio, and the lean acorn-growth of Illinois. Were Judaism to prevail where would be the greatness of Cincinnati? Flour from Virginia and Ohio, old and new, sweet and sour; the leading breadstuff, yet the most fickle in price: cotton from Arkansas and Mississippi, lumber from Tennessee, whiskey from Missouri, tobacco from Kentucky, twice foundered, twice drenched, to be here dried, cured anew, disguised and re-packed, close the list.

"But the men who make these things of wood their dwellings; who launch them upon the Ohio, the Illinois, the Upper Mississippi, the Missouri, the Arkansas, and the Cumberland, with all their tributaries, and guide them to this their final resting-place, should not be forgotten. They are a distinct class of beings, livers on the water, known and designated as 'boatmen of the Mississippi,' an expression which embraces all that is strong, hardy, rough, and uncouth, with much that is savage, wild, and lawless. They cannot be supposed to have been born in habitations constructed for so temporary a purpose, yet the congeniality of their dispositions with their situation and employment might justify one in suspecting that their mothers, like Antonia Perez, often visited the scenes of their husband's labors."

The steamboat landing:

"That part of the quay which is peculiarly characteristic of New Orleans, I mean the steamboat landing. Here all is action: the very water is covered with life. Huge vessels float upon its bosom, which acknowledge none of the powers of air, and wait no tide. One is weighed down to the guards with cotton—a freight of three thousand bales—one hundred and eighty thousand dollars! Twenty more lie side and side, laden with the same precious, gambling, national, ruinous commodity. The twenty-first has just arrived, and is puffing, blowing, and wheeling in the stream, seeking a mooring. She is covered all over; a mountain of cotton! Does its consumption keep pace with its growth? What will be the effect of bringing into culti-

vation all the productive land of Mississippi, Arkansas, Alabama, Louisiana, and Texas? *Terra ingens et interminata!* The southerner may well tremble for the future: a market glutted without the possibility of a recovery from the surfeit. The planter can never grow silk: that requires a poor, dense, white population; and he can never grow wine, for his soil will produce none but an inferior grape, which will not cover the cost of slave labor.

"Huge piles, bale upon bale, story above story, cover the Levee. A gang of negroes is still adding to a heap of ten thousand, unguarded, unprotected; the winds fan it, the rains beat upon it, the sun bleaches it, the bagging and the rope rot and fall off; a consignee at Liverpool, who is accustomed to handle the commodity so preciously, would run stark mad with imagining one half of what is here to be seen.

"Pork without end; as if Ohio had emptied its lap at the door of New Orleans. Flour by the thousand barrels; rolled out upon the quay, headed up, pounced upon by the inspector, who pierces each through and through with a long hollow tube, well calculated to bring away his perquisites. A large area is covered with these two products of the up-country, and still appears seemingly undiminished, although the seller, the buyer, and the drayman are busy in the midst of it.

"Here is a boat freighted with lead from Galena; another brings furs and peltry from the head waters of the Missouri—three thousand miles to the northwest! When I contemplate the vast region of country which is now just opening to cultivation, and of which New Orleans is the natural mart, I find it impossible to set limits to the city's future increase; how can I resist the conclusion that at some, and not very distant day, northern products will be here collected in such quantities as will reduce its present great staple of export to an inferior rank in mercantile importance."

The ship Levee at twilight:

"The sun is just dipping into the west, and the broad bosom of the Mississippi is bright with its departing rays, which dance upon its surface, as upon a mirror quivering in the breeze. The busy hum of life is hushing to repose, the whole scene grows mellow, and man, with all of nature, puts on a softer aspect with the closing in of night. A light south wind comes gently from the gulf, scented with the sea. All that man has done, and all that man is, is before me. The merchantman and the steamship tell the whole story of art, of science, and of luxury; of discovery and invention; of the interchange between nations, imparting knowledge, harmonizing manners, creating refinement; of the exchange of the products of distant climes, supplying nature, and feeding artificial wants; of all that has been since 1492. The Cathedral bells are chiming to vespers; the flags of every nation—our own, the English, the French, the Spanish, the Dane, the Russian, the Swede, the Hollander, the Free Cities—are run to the mast-head to salute the setting sun. That custom speaks; the most ignorant sailor understands it; and, as he sees the shade cover the hull, and creep upward till the colors of his country are alone bathed in light, while all beneath is dark, his better feelings gush forth in worship without form.

"I have chosen this hour to visit that portion of the quay which is appropriated to foreign and coastwise shipping, because it is at this hour that the *wharf* partially changes its character, and assumes the appearance of a *prado*. The dull, dusty, dirty routine of business is the same throughout its whole extent. The interminable chant of the negro, with its full, sonorous chorus is here supplied by the hearty "Heav-yeo-up!" of the sailor; and the cotton-bale, tobacco-hogshead, and whiskey-barrel yield to bales of foreign and domestic manufactures, pipes of wine, and crates of ware.

"The shipping stretches away from the point at which I stand as far as the eye can reach, two miles in extent, three tiers deep, with their heads to the current, curving with the river—a beautiful crescent. The bosom of an American heaves with honest pride as he looks upon the city, and this its chiefest ornament—the work of only thirty years! The last of sunlight has disappeared; the merchant, weary with the day's activity, thoughtful, stooping, his eyes bent upon the ground, hurries homeward, calculating his profits; "Y-augh! y-augh! y-augh!" a gang of negroes, ever merry—there is not a surer test of happiness than uniform hilarity. Next come some half dozen sailors, in tarred hats, clean check shirts, white trousers and slippers. They have just arrived, have just received the little money due them, and are just starting into the city with a sober gait, and an honest, open face, to see life, and get rid of their sea-legs.

"There is no twilight at the 30th degree north latitude. That sweetest of the

sister-hours—that hovering between light and darkness, in summer so mild, in winter so brilliant, at all seasons of the year so tranquilizing to those whose feelings have been set on edge by the past day's homely labors, is here unknown; and already the stars begin to twinkle forth, one by one, bright and unobscured by vapour. New Orleans, though lapped in swamp, possesses a pure atmosphere. The stars come twinkling forth one by one."

The habitations of the dead,—for this is life,—to die.*

"New Orleans has five cemeteries; of these the Catholic and two Protestant are unique in plan and method of interment. Each is enclosed with a brick wall of arched cavities or ovens, as they are here called, made just large enough to admit a single coffin, and raised, tier upon tier, to a height of about twelve feet, with a thickness of ten.

"The whole enclosure is divided into plats, with gravel paths intersecting each other at right angles, and is densely covered with tombs, built wholly above ground, and from one to three stories in height. This method of sepulture is adopted from necessity, and burial under ground is never attempted, excepting in the 'Potters' Field,' where the stranger without friends, and the poor without money, find an uncertain rest, the water with which the soil is always saturated, often forcing the coffin and its contents out of its narrow and shallow cell, to rot with no other covering than the arch of heaven.

"The cemetery in which I now stand looks as if modelled after a growing city. The tombs have an air of freshness about them which betrays their newness—nothing seems of yesterday—the peculiarity of their structure, their closed juxtaposition filling the plats like blocks of buildings, the well-gravelled paths between, the wall about the whole, with its numerous receptacles for the dead rising story above story, check the fancy, and almost persuade the visitor to believe he stands in the midst of a panorama of what the great mart which feeds it is to be. Even the little slabs of black and white marble, affixed like door-plates to the mouths of the tombs, carved with the names of their occupants, giving dates of birth and death, help out the illusion—they were all so young, one can hardly believe them to be of the dead! Yet that fact tells a world of sorrow, and discourses more eloquently than could the most gifted tongue, of the true character of that city, which here finds its final resting-place—its comparative newness, its advantages of trade, the great influx of aspiring youth, the periodical visit of the destroyer; the periodical passing away of thousands in the bloom of life, while more than thousands rush in to fill their places, again to pass away—again to be more than supplied by new adventurers: thus running a continual round; a race after death, while New Orleans, unchecked strides onward towards the goal of its destiny. Is man, with all his intellect, a play-thing in the hands of fate? Me-phistopholes would laugh till his sides cracked amid the tombs of the cemeteries of New Orleans."

* ALL SAINTS DAY AND THE CEMETERIES.

We may not altogether steel the heart and chronicle the statistics of life and death, nicely balancing them, like the sum of the export and import trade of the world. The man dies,—it is a *fact* and he is a unit, and many such facts and units make up a table. We can reason about such tables; but this man that has died and the hopes that are blasted and the hearts that are crushed, oh! these are *fictions*, and we do not chronicle them!

Well, let the reader protest as much as he pleases, we shall not always count living heads and tombstones for him, that in a nice fraction it may be shown the chance that lets him live, the web or cable that suspends him over the yawning chasm. Statistics of commerce may do very well, but we forbear those of mortality, at first intended in this note. Count the chances for yourself!

One may feel in a grave yard, and find a monitor in every grass blade; this makes a grave yard so uncomfortable, especially at night and when one is alone. But the grave yard ever teaches, and never more than here, where Catholic rites bring yearly

back the memory of the dead, and freshens their tombs with emblems from the living. This calls to mind past thoughts and associations, and our diary of time distant back gives us a page which we have just referred to, and half consenting to insert here—consent. As we said before—not always facts, dry facts and figures!

“Nov. 1.—*All Saints Day*.—In the suburb Tremé, walled in with strong masonry and entered by massive gates, are four ample squares. The Catholic has laid out these wide cities of the dead and peopled them. Magnificent monuments rear their heads within these precincts. The cities of dead men are not without their splendours. I see the gorgeous tomb of the Cazadores rising with its head above all others, and around the walls of the squares rows upon rows of receptacles, for the stranger dead, are arranged with open mouths. But the vision changes. To-day is the celebration of the festival of ‘All Saints.’ They have thrown the gates wide open. The dead will live again in the freshened memory of the living. A thousand tombs and vaults are covered with flowers and garlands. Beautiful flowers load the breezes with rich odours and perfumery. There are rare vases on the marble slabs, and brightly burnished candlesticks of silver and golden crosses. Strains of music, too, float over the tombs, and amidst them and around them solemn marches of priests chant at night-fall their requiems and mutter their prayers for the souls of the dead. It is beautiful to visit the homes of those who have left us, and shed a tear over their memory. I recollect in boyhood a tender sister. I loved her more than I can love now—but she died—died praying for me. It was lovely moonlight when I first visited her grave—her grave amidst woods and forests. Every thing was deathly still save the wind which moaned drearily among the trees—but no matter—long time has passed since then, and the grave of my dead sis’er is far away from me now. * *

“In the Catholic cemetery of Orleans, on the day of All Saints, the thousands and ten thousands of visitors are passing in irregular procession among the tombs—gaily decorated tombs—and recalling associations and memories of other days. There is a gaiety and thoughtlessness in much of that throng, and curious strangers are attracted to the spot. I hear the jest at times and the light word. These feel not the emotions which the occasion should suggest. But I mark in the habiliments of mourning yonder, one whose thoughts seem to have wandered away from this strange admixture of life and death. A woman has been arraying flowers over yon marble, and wreathing fresh and fair garlands of roses for the tomb. There is a pale face under that hood, and lines of grief are marked upon it. A single line upon the polished marble before her, but it speaks a volume, that line ‘*Ma Pauvre Fille*.’ A mother weeps, but there is a touching sweetness in flowers to soothe the woman’s grief for her lovely girl that lies there, and the mother’s hand is busied with the flowers now—

“And lilies with the modest violets joined
And daisies pure and fragrant jasmine vines
In sweet memorial.”

* * * * * One—two—three—four—they are sisters, beautiful girls in weeds. They are sad and thoughtful, and heed not the gay crowd around. How lightly they tread upon the sod, and with what tenderness they place the flowers, the bits of crape, and beautiful shells upon the monument. They have lit the waxen candles now. These girls are orphans. A mother in heaven may be watching over their pious love at her tomb—and, as I rest me by a pillar, and regard the interesting sisters, I see the elder in her earnestness, and all absorbed attention, has knelt to place a floweret more tastefully than before. She is unconscious of her position there—but, I think at this moment, as I am lost in contemplation of the deeply affecting sight before me—I think was there ever any thing passing lovely—was there ever an angel visitor of earth—that beautiful girl kneeling there at a mother’s grave, and adjusting a flower, with filial piety, and unconsciousness of the world around—that beautiful girl is the angel.

* * * * * All day long, thousands and ten thousands have been visiting the habitations of the dead. Wealth and poverty, old age and childhood have been wandering through the ground. Gorgeous ornaments are here for gorgeous tombs, candlesticks and crucifixes of gold and silver, rich vases and costly odours. Humble brick piles are intermixed among those costly ornaments. I see one which is decked with a simple flower alone. It lies carelessly, but there was piety in throwing even that simple flower. A strangers’ hand has decked a strangers

tomb. I love the beautiful charity of the act, for oh! God, a heart may be entombed in that strangers grave, which stands there without inscription, a heart which has once warmed with the noblest impulses and affections. * * * *

* * * * * And now amid these plain tombs and gorgeous palaces of the dead, I have wandered for hours. The last traces of daylight are lingering faintly on the scene---the waxen candles are lit up---the throngs of visitors are growing gayer---music is wafting its lively notes---the laugh and the merriment, and the noise of cannon are heard. I leave the spot in sorrow and in thought. I am lost again, a unit in the mass of this crowded city---but a better man, I hope, from the imposing ceremonies of the Sabbath of All Saints, in the Catholic cemetery of Orleans.

Art. VI.—CULTURE OF THE SUGAR CANE.

CULTURE OF THE SUGAR CANE AS FOLLOWED ON SOME OF THE MOST SUCCESSFUL ESTATES.

THE first operation is to clear the main drains and the cross ditches leading to them, so as to arrive at as complete a draining of the field as the localities will permit. This is a work of the utmost importance; indeed when judiciously attended to, the soil of Louisiana will be found as favorable to the sugar cane as that of any part of the world. The ground is then cleared of all trash remaining on it at the close of each grinding, and the whole is bedded in a trench opened for that purpose between the rows of such of the stubbles whose soil requires renovation; by so working, the nutriment absorbed by the cane prepared for the mill is returned to the soil, and the bedded leaves and trash serve for the planting of the following crop, whilst in the meantime giving porosity to the soil and facilitating percolation for the growing stubbles. Fields thus worked are found to gain in fertility by cultivation instead of losing as is always the case when the ground is left without repose, and the trash is burned.

The field being in a fit state for the plough, the ground intended for the plant cane is opened as deeply as possibly, each plough being drawn by a team of four heavy mules; then wide clean furrows by a double plough called the fluck, are opened eight feet apart, and according to the quality of the soil, from two to four canes are placed in each furrow and lapped the whole length, and are immediately covered with fine earth; on a well managed estate, this work should be completed at latest by the first of March. Immediately after which begins the second operation, to wit: the barring off the stubbles or rattoons, and the cultivation of the field including corn and other provisions; barring off consists in running as near as possible each side of the stubbles, a plough so shaped as to throw off the earth from the stubbles, then the

stubbles are shaved close to the mother plant by a very sharp instrument worked by a horse, and very rapidly and in such a manner as to leave on the plant, if possible, only from a half to one inch at most, of earth. And now begins the ploughing between the rows of canes, plants and stubbles, to put down the grass, to loosen the soil and to forward vegetation; for this purpose and for a field of six hundred acres of cane and two hundred acres of corn, thirteen two horse ploughs are amply sufficient, provided the teams can be changed twice a day; three hands follow each plough with their hoes to clear the grass where the plough cannot do it, and to clean the cross ditches; this working is continued until the canes are sufficiently forward to be earthed, when the fine soil between the rows is gradually brought from their centre to the foot of the plant, thereby turning the row into as many ridges, and the space between them into so many drains sloping about one foot from the top of the ridges to the bottom, and emptying themselves in the cross drains, which in their turn run into the main drains made of sufficient capacity to carry rapidly any quantity of water that may fall during the most rainy season. So soon as this work is completed which should not be later than the 15th of June, a sub-soil is run three times between each row and to the depth of one foot; this is done very rapidly where the instrument is sharp and well shaped, and drawn by two strong mules, and adds considerably to the porosity and depth of the soil.

The canes thus brought to this stage require no more cultivation; they soon form a beautiful arch, smother the grass below, and shoot gradually their saccharine matter above from cell to cell of a tubular form, until the beginning of October, when commences the cutting, the matrassing, the grinding, and the boiling of the cane into sugar.

That this mode of cultivation compared to the routine of three-fourths of our planters may be well understood, the following dialogue is introduced:

DIALOGUE BETWEEN A PLANTER OF THE OLD, AND A PLANTER OF THE NEW AND PROGRESSIVE SCHOOL OF HUSBANDRY.

1st Planter:—How is it neighbor, that with the same number of working hands your crop of sugar is secured when mine is hardly half through, and that your crops are regular and generally double of mine?

2nd Planter:—The reason is very simple. We have it is true, the same number of hands, but you rely chiefly upon them for your field work, whilst besides mine, I employ mules where ever they can do the same work; the consequence is, that my working power is really greater than yours, as you will perceive as we go on.

My teams forming an essential part of my working power, I take special care of them, and never overwork them. I employ 60 strong, well fed mules; you have only 30 mules and horses that you overwork and feed badly, whereby they are soon made unequal to the task; they should perform it in good order. The consequence is that your work is badly done, and that you lose half of your teams every year, whilst I seldom lose any of mine.

Drainage is the life of vegetation; my field is completely drained, yours is not, and thus it is that your soil is stiff and clammy, whilst mine is the reverse. It is true that you employ your own negroes to open a few narrow ditches, without issue when they are full, whilst I employ Irishmen to open my main drains so that my lesser drains may always find a rapid issue. This, however, I do not consider an expense, but a capital at compound interest which I place upon my estate.

My soil being made deep and porous by drainage, and yours being the reverse for want of it, gives me a very great advantage over you in a rainy season, or during a drought. In a rainy season all surplus water is rapidly carried away from the surface of my field by percolation, so that a few hours after the heaviest rain, my ploughs are seen at work; in your stiff and clammy land on the contrary, your field remains under water, it being deprived of surface draining by percolation, and your ploughs are seen at a stand for days together when most wanted to command the grass smothering your plants, whereby you lose your crop. Again our summer sun is death to the plant under surface water, whilst highly favorable to that freed from it.

During a drought, in my deep and porous soil, the sun by attraction, supplies my plants with moisture, to meet which they send their roots deep in the soil, which is favorable to the production of saccharine matter. In your field, on the contrary, the sun having no action beyond its surface bakes the land, and starves your plants whose roots cannot penetrate below. For purposes of reproduction the best and most perfect seed are used. This I invariably do; you do the reverse, by keeping for plants your worst canes.

My first operation in beginning the agricultural year, is to clear my drains, so as to prepare my ground for the plough, and to clear my field of leaves and tops by bedding the trash in furrows between the stubbles, that the nutritious power taken from the soil by the cane ground, be returned to it by the leaves and tops thus bedded, production and renovation being found thereby to keep in perfect equilibrium, and rendering unnecessary the laying by of a large portion of the field for pur-

poses of renovation by a change of cultivation or otherwise, as was lately the general practice.

Your first operation, on the contrary, is to burn your trash, thereby destroying the best manure that can be used for renovation of the soil and production, and then before cleaning your ditches, you commence ploughing and planting. The consequence is, that when the season is wet, your ground being saturated with water becomes stiff and clammy; that your ploughs move in it with the greatest difficulty, and at best only scrapes it, and that your canes are bedded in mud or earth as hard as brickbats, according to the weather—all things destructive of good vegetation; whilst my field being completely drained before I begin ploughing, my teams of four stout and well fed mules walk over it rapidly, leaving behind them as deep a furrow as needed, and the ground thus loosened at a proper depth being ever relieved by my drains of all surplus water retains a porosity which affords to my canes a dry bed and a cover of fine soil, whereby life is secured to almost every eye of the plant; and then again your land being stiff and clammy for want of draining, and mine not, my planting is completed before yours is half done.

I plant my canes eight feet apart, and according to the quality of the land; I place from two to four canes in each furrow, lapping the same the whole length.

There being plenty room between my rows of cane, I work two horse ploughs with ease, and without disturbing the young plants shooting out, or the fibres forming in the deep soil prepared, all which is of great importance, for the moment the young roots are disturbed, the plants turn yellow and their growth is suddenly checked and so remain until new fibres restore them again to a healthy condition, which seldom takes place in less than a fortnight; thereby throwing back the growth and maturity of the cane a fortnight and more. Thirteen two horse ploughs and a double set of mules so as to change them once a day, and three hands to each plough to clear the grass where the plough cannot act, suffice to keep in the very best order my six hundred acres of cane and two hundred acres of corn, (whilst preparing fine soil to earth my plants when needed,) to clear my cross ditches of grass and earth thrown in them by the plough, and to open each furrow into the cross ditches, so that, in heavy rains the water not absorbed by percolation may be rapidly carried to my cross and main drains, &c., &c.

By 15th June my canes are sufficiently forward to leave them to themselves, when the fine soil prepared by the plough between the rows is rapidly carried to the foot of the cane so as to form a ridge of

about one foot, descending gradually to the centre of each row, thereby forming a drain, through which I run three times a sub-soil to the depth of about one foot, the whole finding an issue for any surplus water in the cross-ditches. By the middle of June, my field requires no more care, and then begins wood-chopping by the men, and brick-making, road-making, or some other light work, by the women and weak hands.

You, on the contrary, plant your canes five to six feet apart, and, be the condition of your land what it may, you only put two canes in each furrow, lapping the same.

My furrows containing one half more canes than yours, and my ground being better prepared, I obtain a much larger number of mother plants in each row; and then I do not disturb them whilst forming their roots, my ploughs having plenty of room to work down the grass, and to prepare soil for them when ready to receive it.

The reverse is the case with you: you cannot work your plough in your narrow rows without destroying more or less of your plants, or disturbing their tender roots, whereby their growth is immediately checked, the plants turning yellow, as before said, to their great injury.

Want of space compels you to use only one horse, whilst I use two mules to each plough; the consequence is, that with exactly the same number of ploughmen, I perform double the work you do, and that the grass in my field is rooted out and destroyed, whilst in yours it is seen growing up nearly as fast as cut. Unable to overcome the grass with your ploughs, the whole of your gang of negroes is seen constantly employed with their hoes helping the ploughs, and it requires unusually favorable weather to enable you to lie by close of July, such canes as you can bring forward, thereby throwing back their maturity, and your wood-chopping fully one month and more, and bringing your grinding to the most critical period of the year.

And when the cane is laid by to shoot up its tubular cells and to form its saccharine matter, it requires both air and sun, neither of which yours can have in your narrow rows, and hence the want of maturity of your canes when mine are fully ready for the boiling-house. Thus it is:

That my canes having good drainage, plenty of room for air and sun, and good ploughing, neither of which yours have, grow faster and larger, and mature sooner, whilst I obtain more mother plants and less shoots in my twenty-two rows per acre than you do in your thirty or thirty six rows.

That my negroes are chopping wood in the forest, making bricks,

preparing the sugar house, &c., &c., whilst yours are sweating among your canes, and catching cold and fever on issuing out of the crowded le aves.

That my canes are laid by a month earlier than yours, and even more, which gives me an advantage over you of one month in the maturity of my canes, which is all important, for, when the winter is early, the ripe cane can bear a very heavy frost, and be cut and preserved one month and more, whilst a green cane whether cut down or not, is destroyed by the first heavy frost.

That whilst I carry canes to the mill averaging five to six feet high, yours seldom average more than three to four feet.

That my wood-chopping is completed when you begin yours, whereby my fuel for boiling is dry before used, which is a very great advantage both for the rapidity and quality of granulation, whilst yours is green.

That my hay and provisions are secured when you begin to take in yours, whereby you are very often deficient in your stock of hay by not being ready for it when it is ready for you, and your poor animals suffer for want of dry food at the very time they most want it.

That my teams by proper treatment and a judicious distribution of their work, so as not to throw extra labor upon them at any time, retain their healthy condition throughout the season. That yours, on the contrary, having to go through the heaviest of your work within a very limited period, are broken down before the commencement of the grinding, whereby your mill is half the time idle for want of canes,

That in an early winter you lose a large portion of your canes, whilst I always secure mine.

That with equal power of engine and boiling apparatus, my teams keeping both supplied with canes to the extent of their power, and my fuel being dry, which is not the case with you, on an average I boil double the quantity of sugar that you do, and that my grinding is completed when yours is not half through.

Thus it is, in fine, that by close attention to the ordinary rules of good husbandry, and the proper balancing of my working power, agricultural and manufacturing, during the period within which sugar can be made in Louisiana, as safe and regular a crop as any other in the United States, my crops average nearly double yours, and are regular although we work the same number of hands, and our fields are equally extensive.

Art. VII.—PUBLIC HEALTH.

PUBLIC HEALTH AND PREVENTION OF DISEASE IN SOUTHERN CITIES.

It will not be denied that these are important considerations in every community interesting to every class of citizens. Upon them depend the hope or prospect of advancement, and commerce can exercise no empire when controlled by the adverse and blighting influences of disease and death. How much then is it incumbent upon those who have the interests of our cities, more especially of the south, in charge, to regard their health.

It is in this view that we take occasional opportunities to present to the mass of our readers, correct information upon this, as upon other practical subjects of wide public concern. By reference to the numbers of the Review for last year, it will be seen how frequently and fully we have done this.

At this time we would merely exhibit some reflections from the Committee of the Board of Health, of which Dr. Hort is chairman, together with a most interesting letter with which the learned Professor has favored us for publication.

The Committee say in allusion to yellow fever: "Since 1839, the disease has been decreasing in private practice and has been confined chiefly to the Charity Hospital, showing it to be the results of some *special* and not of a *general* cause."

The following list of deaths and interments will show the progress of the fever during the past season in New Orleans:

From 23rd to the 30th of August,	68 deaths;	no yellow fever reported.
" 30th Aug. to 6th of Sept.,	90 "	1 case yellow fever reported.
" 6th to 12th Sept., :	74 "	no " " "
" 12th to 19th " : :	93 "	3 cases " " "
" 19th to 26th " : :	68 "	5 " " " "
" 26th Sept. to 3rd Oct.,	94 "	21 " " " "
" 3rd Oct. to 10th, : :	88 "	12 " " " "
" 10th Oct. to 17th, : :	107 "	39 " " " "
" 17th Oct. to 24th, : :	98 "	22 " " " "
" 24th Oct. to 31st, : :	91 "	14 " " " "
" 31st Oct. to 7th Nov.,	84 "	12 " " " "
" 7th Nov. to 14th Nov.,	82 "	8 " " " "

"The Committee regret that they are unable at present to compare the above with similar reports from New York, Baltimore, Philadelphia and Boston. From the middle of September citizens and strangers were pouring into the city by thousands, yet the increase of deaths was in no ratio with this fact, but only such as invariably occurs at that season of the year.

"When these circumstances are duly considered, and that moreover disbanded volunteers already debilitated by disease on the Rio Grande, were returning every week during the summer and fall, that most of them were unacclimated men from the Western States, and compelled to remain for some time in the city, it is only surprising that New Orleans has suffered comparatively so little this past season with malignant and yellow fevers. It has been estimated that more than twenty thousand Europeans have settled in this city in the course of the four or five last years, none of whom have been acclimated by yellow fever, and they would necessarily have been exposed to its attacks, and amongst the first victims had the fever been epidemic in its character. Every fact tends to prove that it was local in its origin and confined to the locality where it originated.*

To J. D. B. De Bow, Esq.:—

In compliance with your request I now offer you some remarks on the subject of smallpox and vaccination, for which I had neither time nor space in the report of the Board of Health for the year 1846.

* See N. O. Medical and Surgical Journal, Vol. III, No. 4.

In the report it is observed, that "the smallpox has not hitherto done much mischief in this city, but there is no telling what ravages it may some day make under peculiar circumstances."

I propose to begin with facts, and end with some comments.

It appears that Hippocrates, nor any of the old Greek or Roman authors were acquainted with this disease. The Arabians were the first to notice it after the establishment of the Mahommedan religion. The existence of it cannot be clearly traced farther back than to the siege of Alexandria, in A. D. 640. Some writers think that they have found traces of it in very ancient Chinese records, and others in the sacred books of the Gentoos; and other accounts state that it appeared at the siege of Mecca in 522. But there is nothing on the subject that can be deemed authentic prior to the siege of Alexandria by the Saracens in 640. The disease gradually spread throughout Europe, and in 1520 reached some provinces of South America, and proved fatal to *one-half* of the inhabitants. It has always been peculiar, virulent and destructive on its first appearance in a country. For a long time it was considered in Europe the most fearful ordeal to which youth could be exposed.

According to Dr. Jurin, who wrote in the beginning of the last century, 65,079 persons perished in London by this disease in 40 years; and the same writer observes that one fourteenth part of mankind died of smallpox.

When inoculation was introduced at St. Petersburg in 1768, it was a fact well ascertained that the smallpox had destroyed annually *two millions* of persons in the Russian Empire.

Indeed, it has not only carried off more victims than perhaps any other one disease, but it is at the same time the most loathsome and disgusting, disfiguring for life nearly all who are fortunate enough to recover from its attack.

We know what dreadful ravages this disease has within comparatively few years made amongst the Indians residing between the Mississippi and Missouri, and on the vast plains that extend from the Mississippi to the Rocky mountains, even to the utter extermination of some tribes.

The first check that was given to it was by inoculation with the matter of small pox to produce the disease in that way. This, without reflection, would appear to be a strange way of putting a stop to its fearful ravages, but when we remember how much better calculated the human system may be at one time to resist disease than it is at another, the subject will become intelligible. To the natural smallpox

persons were exposed at all times, and probably were attacked at the very time they were least able to resist; for if the contagion of smallpox consist of organized matter, of which I think there is abundant proof, as will be seen hereafter, then it is a well established fact, that the weaker the animal, be it man or animals in general, the more liable is he or they to the attacks of parasites. It can then readily be seen how much the chances of recovery were increased by the system being prepared and strengthened under a course of treatment established by experience. Hence it is not surprising that while one patient in five or six died of natural smallpox, only *one* in *sixty* died of the inoculated disease. In short, in the one case the system may be compared to an army disciplined, entrenched, and fully prepared to meet its enemy, while in the other, it is like an army taken by surprise and unable to make any successful resistance.

This practice was introduced about a century and a half ago, first amongst the Greeks in European Turkey. It was announced in England in 1716, and then gradually introduced throughout the civilized world, although it met with great opposition. It was resorted to in Scotland in 1726, and in Ireland in 1723. Between 1743 and 1750 it was introduced into this country, and in some of the West India islands, where it proved more successful in checking the fatal disease than it had in Europe. An American student, Doctor Tennet, in a thesis published at Leyden, stated that of 8327 persons inoculated in Philadelphia and the neighboring provinces, only 19 died, being in the proportion of one to 438.

But as this practice has been superseded by one more safe and far more convenient, it is unnecessary to dwell longer upon it. The discovery of the vaccine matter obtained from the cow, which produces a disease in the human system called the cow-pox, rendering it, as a general rule, ever after proof against the attack of smallpox, was made by Doctor Jenner, who published a treatise on the subject in 1798.

This extraordinary fact was discovered by accident; the human mind would never have reached it by induction. It was first observed in some of the western counties of England, particularly Gloucestershire, where it was seen that persons employed in milking cows contracted a disease from pustules on the teats of the cows, which afforded them perfect immunity against the smallpox.

Dr. Jenner did not consider this disease to be of sporadic origin in the cow; he traced it to a disease of horses called the 'grease.' Various opinions prevailed on this subject. Some thought that the thin secre-

tion from the horse would produce cow-pox when applied directly to the human system, while others contended that it had to pass through the cow before it could act beneficially on man.

It is however a question of no consequence: it is enough for us to know that a matter can be obtained from the cow which will produce a disease in the human system, which protects it from the smallpox.

The arm of a child being inoculated with the genuine vaccine matter, there should appear about the third or fourth day, a small red spot in the punctured part, which gradually becomes more florid, and is slightly hardened and swelled. This spot is converted on the fifth or sixth day into a small white vesicle; it is much increased in size in two days, and usually has a diameter of from one-third to one half of an inch. The edges are elevated, and in the centre there is a slight depression, which is speedily surrounded with a crust. On the eighth or ninth day, circular inflammations appear around the vesicle, increasing for three days, which are sometimes half an inch and sometimes two inches in diameter. This inflammation begins to disappear on the eleventh or twelfth day. The vesicle gradually becomes harder, and of a dark brown colour, and is at last converted into a horny crust, which in due time separates, leaving a depression in the arm which remains during life.

Now the appearance of this depression, as well as the degree of violence of the constitutional derangement, are circumstances well worthy of observation.

The more regular the depression, and the milder the constitutional symptoms, the more we depend on the success of the operation, and the security afforded.

The febrile irritation seldom lasts over twenty-four hours; and the disease is milder when produced by inoculation than when taken in the natural way from the teats of the cow. In the latter case, tumours are often formed in the arm-pits; the febrile symptoms are severe, with shivering, pain of limbs, vomiting, headache and delirium, which last for several days.

There is, however, no danger in it, as it has never been known to cause death.

In the cow, the disease which furnishes the vaccine matter appears in the form of irregular pustules on the teats. On their first appearance they are of a livid colour, surrounded by an erysipelatous inflammation. These pustules will degenerate into tedious and phagedenic ulcers, unless checked by the application of caustics.

We have now seen that the cow-pox, although it may occasionally

produce considerable disturbance of the system, is yet perfectly safe. The other point to be decided is, whether the cow-pox gives complete security to the human system against the attack of smallpox.

As a general rule, this may be considered an established fact, provided the matter be genuine, the system in a proper condition to receive it, and the implanted disease runs quietly through its course. But even in Dr. Jenner's time, there were apparent exceptions and occasional failures, creating in his mind some doubt and anxiety. There may be other diseases of the cow very similar in appearance, which do not furnish the requisite matter, or the operation may be badly performed, or the system may not be in a proper condition to receive it.

As the anxiety of parents is very great to feel assured that their children are thoroughly protected against smallpox, it may be well to advert to what is considered a safe test.

The plan was suggested by Mr. Boyce of Edinburg. It consists in making a *second* insertion of the vaccine matter at the end of the fifth day from the first innoculation. If this second application of the matter, and it should be made at the most remote point possible from the first, produces a smaller vesicle than the first, and passes through the several stages with accelerated progress, so that the areola surrounding the two vesicles are formed about the same time, it is inferred that the whole system is under the influence of the disease called the cow-pox; but if no effect is produced by the second insertion, the fact is undecided, and the impression may be only local.

The confidence in the immunity afforded against the smallpox by the genuine vaccine matter, well applied, and under proper circumstances, was unshaken until about the year 1817, when a disease called the varioloid, that is, resembling variola or smallpox, made its appearance in Great Britain, which, though not as fatal as the true variola, yet occasioned great alarm. This epidemic attacked numbers of persons who had been vaccinated, but I can find no record of persons who were innoculated by the smallpox having taken it. An inference has been drawn from this, that the variolous innoculation is a more certain preventive of smallpox than vaccination. This may be true, considering in how comparatively few cases the genuine matter is used, and the true disease produced. Yet vaccination will ever be preferred to innoculation, because, as we have seen, deaths occur from the latter and never from the former.

Besides another fact has been established, that during the prevalence of the varioloid in 1817 and 1818, persons who had been vaccinated, and it is fair to presume imperfectly, suffered much less than those

who had not been vaccinated. So that if, through the imperfection of the operation, complete immunity was wanting, yet great and favorable modification of symptoms was observed.

The choice of genuine matter should then be carefully attended to. A good vesicle in a healthy subject should be selected, and the matter should be taken between the fifth and ninth days of the disease. It is most efficacious when immediately inserted into another subject. If it is to be kept, it should be allowed to dry naturally, but never by the heat of a fire. It may be preserved on glass, or on ivory, or on the point of a faucet. Mr. Bryce recommends the employment of the crust, which contains in its central part, matter that was matured at an early stage of the disease.

This dried matter when carefully procured and put up, may be transported to any distance, and will keep for a considerable time. When used, it should be moistened with water of a blood heat; but recent matter is always preferable. In all cases the matter must come in contact with the cutis vera.

The best time for vaccinating children is generally considered to be about the end of the third month, before the constitution is disturbed by teething.

The foregoing facts have been chiefly selected from the *Edinburg, American, and Ree's Encyclopedias*.

Perhaps no failure would ever occur, could the matter used in vaccination be always procured from the original sources, but as this is for the most part impossible, it is important in large cities that a large number of children should be vaccinated at the same time, so that an abundant supply of vaccine matter can be obtained, not much, if at all impaired, without being passed through more than two or three human systems; where it is reasonable to suppose that it undergoes some modification, until at last by transference its virtue may become entirely extinct. And as this seems to be the principal cause of failure, it becomes a question of great importance to determine how many times the matter can be transferred to successive persons before it becomes modified, or finally inert, or even mischievous.

It has been stated that the contagious matter of smallpox is of animal origin; for the proof of this I must refer your readers to the experiments of Prof. Riddell, as quoted at pages 466 and 467 of No. IV, vol. ii., of the *New Orleans Medical and Surgical Journal*, which in the present state of physiological chemistry are deemed conclusive.

And I entertain no doubt as to the vaccine matter being of the same origin; and that the parasites in the matter of smallpox and cowpox

belong to that abundant class which we know to be so productive of disease. But why the one should prove an antidote against the other, is as much beyond the reach of human intellect as are the great laws that maintain in mysterious yet harmonious movement the planetary and astral systems. No microscope has ever yet presented to the human eye the animalcules which must constitute the contagion of smallpox, as demonstrated by Professor Riddell, or the animalcules that exist in the noxious air that hovers over marshes, as established by Moscati and Boussingault; yet the traces of animal matter detected by unerring tests, leave no room to doubt the fact of the existence of animalcules.

It may be asked, what becomes of the germs of animal life in the dried scab that comes from the arm of a person who has been vaccinated?

Such a condition of things is not at all inconsistent with that form of animal life. The wheel animalcules discovered and described by Lewenhoëck, only exhibit symptoms of life when immersed in water but they may be deprived of this fluid and made perfectly dry, so that all the functions of life may be completely suspended, yet without the destruction of the vital principle; for this atom of dust after remaining for years in a dry state, may be revived in a few minutes by being supplied with water. (Riddell.)

By vaccinating a large number of children at the same time, the matter would perhaps be transferred but two or three times before a supply of fresh matter could be obtained from the North or from Europe.

Emigrants from the north of Germany are pouring in upon us, and every now and then smallpox is found on board a vessel crowded with passengers. Persons have actually landed when there was no evidence of the smallpox existing on board a ship at the time of her arrival, on whom the disease has appeared a few days after landing. We have so far fortunately escaped any serious visitation, but it is certainly the duty of our municipal authorities to leave nothing undone that can be done, to protect our citizens from so serious a calamity as an epidemic smallpox.

I am with respect,

Yours, &c.

WM. P. HORT.

Art. VIII.—THE PLAQUEMINES REGION.

No. 1.

“ Know ye the land where the cypress and myrtle
Are emblems of deeds that are done in their clime.”

The parish of Plaquemines is certainly a land of the “cypress and myrtle,” and many a beautiful tree and shrub beside. Of the “deeds” of its people we have no intention to speak; our concern being chiefly with the land itself, its beauties and its blemishes.

The parish, or, as it has of late years been jocosely called, the *state* of Plaquemines, probably from its great size, probably from some events in its history, or probably from both together, embraces all that country on both sides of the Mississippi river, from the English Turn, thirteen miles below the city of New Orleans, to its mouths, and is divided from the parish of Jefferson on the west, by a line beginning a few miles below the city, and running through an impervious sea-marsh nearly south to the Gulf of Mexico, at which intersection it is about fifty miles west of the Balize. On the east it is bounded by the Gulf as far to the north as the river Aux Chenes, a large, sluggish bayou which separates it from the parish of St. Bernard on the north-east. Although it has so great an area amounting to about 2500 square miles, yet but a small proportion of it can be cultivated. The narrow strip on either side of the river being nearly all that can be profitably brought into use.

In other parts of the parish are either cypress swamps, too low to drain, or vast sea-marshes intersected by innumerable bayous and covered by frequent tides. There is besides a ridge of high land on the west, accompanying the river in its course at from one to three miles distance, and from one-eighth to one-fourth of a mile in width, the growth of which is chiefly live and water oaks, from which circumstance they have acquired the name of the *chenaies*. These extend from about 25 or 30 to 50 miles below the city. All of them it is supposed could be cultivated, as they are high above overflow and of deep, rich soil. It is a subject of speculation what could have caused such elevated ridges, so much higher than the surrounding even deposit of the Mississippi. The most probable view of which is, that they were once the banks of the river, and successive battures have left them isolated and thrown the river into its present channel with new banks. This view is corroborated by the fact that there are no *chenaies* on the east side, and leaves the inference that the river in the course of ages has inclined some miles to the eastward of its original channel. There are other small *chenaies* to the westward, one of which is in-

habited, and on the Gulf coast the others are too small to be of any other use than as land-marks and camping places to hunters, fishermen, and pleasure parties boating through the labyrinth of bayous which intersect these marshes.

The parish, as far down the river as Pointe à la Hache, a distance of fifty miles, may be compared to a beautiful town with only one street, the great Mississippi. Its plantations in high state of cultivation, ornamented with handsome dwellings and sugar houses, and long rows of negro cabins, the whole arranged with a view to effect, according to the different tastes of proprietors. The orange, the lemon, the citron, the oleander, the pomegranate, and occasionally the banana and plantain, which cannot fail to produce pleasurable emotions upon the beholder. It is worthy of remark here, that a very few miles down, and near the mouth of the river, makes a difference of temperature favorable to the growth of tropical plants and trees, disproportional to the small amount of southern latitude gained and must be attributable to the more immediate action of the sea breezes. There is also a perceptible difference between the east and west bank. The north winds of winter coming across it down the river is so tempered as to do but little injury to vegetation on the west, or rather south-west bank of the river. It was observable last winter that the lemon trees on the east bank were stript of their leaves, when those of the opposite were untouched, and even hanging with fruit. The frost which occurred about the first of December this year, and remembered by every sugar planter, almost wholly spared the cane planted sixty miles below the city, and a small field seen by the writer of this on the 15th of December, presented a green appearance, with the tips of the leaves only browned with the frost. That part of the parish in the highest state of cultivation and improvement is from Mr. Packwood's, above, to Mr. Osgood's below, inclusive. A full description of the improvements in the making and culture of sugar will be found in Mr. Benjamin's able article on the subject in the number of the Commercial Review for November last, and some remarks upon the whole of this "coast" will be found in a subsequent number of the same work, February, 1847, from the pen of the editor. And here, I would fain speak of the beautiful estates and hospitable habits of the planters, did not this intrench somewhat upon propriety. Of the splendid estates of Col. White, and the Messrs. Osgood and Johnson, and the hospitable mansions of the Messrs. Wilkinsons, and many others, with their different claims to admiration. Interspersed among the sugar plantations, and forming the largest number of the east bank,

are some two hundred rice plantations, many not more than two arpents, or nearly one hundred and thirty yards front on the the river, and contribute to give the coast that village-like appearance which is remarked by every one.*

Art. IX.—THE IMPORTANCE OF DRAINING IN AGRICULTURE.

WE thank the friend who sent us the communication below, though as far as we are privileged, *stat nominis umbra*. This is his pleasure. By the way, would it not be well not to write in hieroglyphics?—this is a hint to all contributors. We want to give another hint, and to all Planters in the South and West: communicate with us freely; let us hear your views upon practical questions in agriculture,—and heaven knows there are ten thousand such subjects. Every opinion from practical men is valuable. Let us have hints upon all the leading subjects of agriculture. Even rough notes will do if *no* more, and we will hew them into shape. It is the aim of the Commercial Review to achieve the greatest amount of good for our section of country, but we want other co-operation from men than their money,—though that is well enough, and better than we sometimes get.

To the Editor of the Commercial Review:

The article on Draining in your number for January, is of incalculable importance to Planters in this region of country. By the erection of one "80 horse power" steam engine, a section of country many miles in extent may be most effectually drained at a very trifling expense; indeed, I have seen many attempts at draining that have been made below the city, and am fain to inquire whether the true theory and system has not been entirely misunderstood? In short, ought not the first drain, sufficiently large and deep, to be carried parallel with the river bank, and within a short distance from it, for the purpose of receiving the water which is continually circulating through it, and spreading over the land to find its escape at the back of the plantation, where it is customary to *commence* operations, by sinking under drains or reservoirs, to receive the water that has, as I say, traversed the whole plantation, from the river bank, to find egress.

The first law in the science of draining is, that "all water must come from higher ground"; and to corroborate the truth of this axiom, permit me to detail the

* NOTE BY THE EDITOR.—"Deer Range," the elegant seat of Col. White, the Senator from Plaquemines, is one of the finest on the Coast. On the river it presents an imposing front, which loses nothing by the closest inspection, amid shades, and walks and rural improvements. Living with an honest and republican simplicity, but with no want not abundantly satisfied, with a hospitality that knows no limits or consideration of self, with affluence, the reward of a life of industry and enterprise, the proprietor does honor to that class of southern gentleman and planters who have ever given character to our region. His mansion surrenders itself to the rites of a genuine hospitality which seems not so much to entertain others as to be entertained by them,—their society, their converse, and their conviviality,—the host becoming rather the guest at his own board. If we have invaded rudely upon the sanctity of private life by any thing in this, which is not our wont, let us have justice meted out,—the writer of the article provoked the *note*, and out of the abundance of the heart the mouth will not be silent.

following successful operation performed by a particular friend of mine, in coming into possession of an estate in a neighboring county. Adjoining his house there had always been a low marsh, the water from which passed sluggishly away by a trifling run at the bottom of the swamp. This pestilential bay produced nothing but aquatic plants and tussocks of coarse grass, amongst which a sheep could not pass without being mired. Many had been the efforts of former occupants to drain this source of miasma and death, but with no beneficial results, although many of the basins had been sunk wide and deep, particularly one that had been driven through the middle of the bay, which only conducted away the water after it had "done its worst."

On the proprietor's first visit to this swamp, he remarked to himself, "this water must come from higher ground": and in an hour after he had commenced cutting a deep and large trench into the solid bank, which completely surrounded the swamp, a few feet from the margin, determined to go until he should strike the clay. Thus he continued, when at the depth of about seven feet he touched it, and then, after entering another foot in it, to form an impervious bottom to the drain, to prevent all chance of overflow, he began filling it to the depth of about two feet with stones, * covering these with slabs and the earth thrown out, and finishing by re-opening the middle drain, for the purpose of conveying the down fall water to the point of egress, and carrying it in the same manner. In six months, a wagon with four horses was driven across in perfect safety, where a sheep could not pass before; and the proprietor considers he has repaid the interest and a large portion of the capital expended in the improvement, in money saved in Doctors' bills, while the pasturage of the lot, covered with the finest herbage, is paying him more profit for grazing purposes than any portion of the plantation three times the extent.

In conclusion I would add, where a regular system of draining is practised, then will the value of the operation of sub-soiling be understood. At present, few soils are so much benefitted as they ought to be by the process, for want of the means of riding the substances of the accumulated moisture. Let these be afforded and the process of sub-soiling our river lands will be uniformly practised, with the most decisive and profitable results, as well in the quality as quantity of our productions.

R. C.

Art. X.—THE UNIVERSITY OF LOUISIANA.

We have permission to publish the following letter received by us in relation to the contemplated University. The plan which it proposes we are disposed to regard very highly, and we believe that it will meet with the consideration which it deserves. Dr. Albert W. Ely, of this city, has favored us also with a plan which we will gladly give publication to in our next number. It is high time that some efficient steps were taken to organize and set in operation the Institution.

NEW ORLEANS, February 10, 1847.

J. D. B. DE Bow, Esq.—

You will recollect that in course of conversation with me some time ago the subject of the University of Louisiana was introduced, when you took occasion to express your deep interest in its success, and sympathies with those who were moving to promote it. Though not susceptible of the same enthusiasm, I could not but heartily agree with you in views, and promised then what God forbid I should hesitate to perform, to co-operate in my humble way to the fullest extent of

* This might as well have been done by substituting long faggots of brush wood consisting of aquatic plants; being thus filled they have been known to run freely for a whole generation.

my means and abilities, in any movement which might be made to secure for our citizens what they deemed so important as to ordain in convention.

The fact is, we of a generation which is fast passing away, who were contemporary with the earliest days of Louisiana, who have shared the fortunes of the State in all the stages of its progress, may be allowed to feel some interest in what is to come after us here, particularly in the fortunes of that rising class of our citizens who are to preserve and extend the character of the State, and perfect what we their sires have scarcely more than instituted. The advantages of this generation are far greater than the last. The school master was *at home* and not "abroad" then. We were called upon to struggle with untoward difficulties, content, indeed, if so much could be obtained with the mere rudiments of education. Hence the surprise should not be, that Louisiana has produced, of her own growth, so few men of commanding abilities and information, but that she has produced any at all. We would, however, amend this evil, and let no one henceforward be heard pleading the past in extenuation of his deficiencies, who will not come forward with the means he has acquired here, and by a liberal appropriation of them, preserve his children, or the children of his countrymen, from a similar misfortune.

With such views and impressions I could not be entirely indifferent to the educational movements now in progress among us. Of common schools, those nurseries of early youth where character for life is formed, and well formed when efficiently organized, no one can have a higher estimate. But what after all are common schools, if the system of education must be arrested there. Is it not cruelty to implant a love of knowledge and deny its consummation? The mere elementary provisions of such schools are not sufficient to qualify men for *all* the relations of life. There is that which they can never give,—the power which influences the councils of a people; which directs and executes high national movements; which extends the domain of letters and science, and is felt in the destinies of a country and an age. Will we have this power? The popular voice of the State has wisely determined that we will.

"A University shall be established in the city of New Orleans, of four Faculties, to wit: One of Law, one of Medicine, one of the Natural Sciences, and one of Belles Lettres.—Art. 137 Constitution.

I know that there are many views current in relation to this University, and conflicting schemes. Some altogether too elaborate, complex, and expensive for our present condition and resources, and others little likely to be efficient. The legislature has, I think, wisely obviated the

difficulty of determining between these, by adopting and passing the bill introduced by Col. Farrar, of the House, which establishes the institution generally, and confers upon an administration selected by the Governor and Senate, all the details of the system.

The Act says nothing of the number or pay of the Professors, the maximum or minimum rates of tuition, the period of appointing administrators, or of entering upon their duties, nor has there been a dollar appropriated or a provision made for buildings, apparatus, etc.

Although I have the utmost confidence that gentlemen will be appointed to the administration eminently qualified by their knowledge or practical experience, to carry out an organization suited to our condition, wants and resources, I cannot but fear that in aiming too high, or in the disposition to do too much, we shall retard the work, and find ourselves longer than is generally imagined in no better a condition in this particular than at present "resolving and resolving, and re-resolving," to "die the same," at last.

I shall be pardoned if in my anxiety upon this subject, the anxiety of one who feels that he has lived a long time to have done so little, I should venture to propose to you, who I doubt not have regarded the subject with the same care and interest, a plan plain, practical, ready and economical for an institution of the kind referred to. It is based upon a communication elicited by me from a gentleman of high scholarship residing at Baton Rouge, Professor Burke, with whom I have agreed upon material points. If I am not over confident, it is the most available plan yet suggested. I speak chiefly of the fiscal character, for upon this only do I pretend to pronounce any decided opinion. If I am wrong, the mischief will not be serious, farther than an hour's trespass upon your time, a thing that must always be submitted to patiently in this world.

But to the point: the first and cardinal consideration is, how much money do we want, and how shall we get it? This is the hinge upon which every thing turns. A University without means is a chimera of questionable shape. "Without money and without price" who shall buy and transact, who shall serve and be served, except in heaven?

Let the University partake of the nature of a joint stock incorporation, with a capital of \$300,000, in shares or presentations of \$1,500 each,—say two hundred presentations. How shall these be taken up?

Let the State subscribe for forty, say	-	\$60,000
City of New Orleans, forty,	-	60,000
Private individuals, one hundred and twenty,	-	180,000
		<hr/>
		\$300,000

And first of the subscription of the State ; this is a small sum to be required for so great a cause, and shall a wealthy commonwealth like ours hesitate in the matter ? It will be seen directly, however, that an ample equivalent will be held out to the State for her liberality here, independently of having performed a high act of public duty. The State might be even allowed to appropriate her subscription to the *construction of buildings, purchase of apparatus, etc.*

In relation to the city of New Orleans she is deeply interested in the success of this movement. The institution will be located in her midst. It will operate most immediately upon her population and increase her rising influence. She will not find it difficult to obtain the means to appropriate, and the act will be sustained by a unanimous approval of our citizens.

The co-operation of private individuals in all public movements is always demanded, and not often refused. They will come forward with their purses to relieve their country in the hour of peril, they will subscribe liberally when the cause has been demonstrated a good and a great one. We invoke them in this instance in every part of the State to raise for the University the sum of \$180,000. How many wealthy and patriot citizens have we ? How many single individuals in other States have appropriated as much as we demand from all ?

Can there not without difficulty be found five men in the State who will take each four shares—

Twenty shares at \$1,500,	.	.	.	\$30,000
Twenty to take two shares each,	.	.	.	60,000
Sixty to take one share each,	.	.	.	90,000
				<hr/>
				\$180,000

If considerations of public spirit be supposed insufficient to move the State, city, and individual citizens, to the extent required, others will be alleged in a few moments, which will hardly be regarded as other than the most influential every where. We will see first, however, supposing the \$300,000 raised, what is to be done with it ?

Sixty thousand dollars will be sufficient for the erection of proper buildings, and a sufficient apparatus for a beginning. This will leave two hundred and forty thousand dollars, which properly invested would yield an interest of nineteen thousand dollars.

Professors must be paid a fixed compensation and sufficient to render the office, as it should be, one the highest dignity and importance. Mere economical notions in these matters are ever misplaced, and defeat the best aims we have in view. The best talent of the country

should if possible be commanded, and such talent must be proportionably rewarded.

Let there be then seven professorships.

President and Professor of Moral, Intellectual, and Political

Philosophy, - - - - -	\$ 5,000
Professor of Natural Sciences, - - - - -	3,500
Professor of Commercial and Statistical Information, - - - - -	3,500
Professor of Rhetoric and Belles Lettres, - - - - -	3,500
Professor of Mathematics, - - - - -	3,500
Professor of Ancient Languages, - - - - -	3,500
Professor of Modern Languages, - - - - -	3,500
	<hr/>
	\$ 26,000
Interest as above, - - - - -	19,000
Deficit, - - - - -	7,000

We shall see directly how this and more shall be obtained.

Fixing the rate of instruction at the very low price, so as to attract even citizens of most limited means, of \$50 per year (private schools charge now in the city \$100) for each student instructed in one or all of the departments, the number of students could not possibly fall short of 140, the Medical College has as large a number, we have at once the sum of \$7,000, the amount desired.

In addition to the 140 students, the University shall be required to instruct free of any expense or charge, a certain number of students to be presented as follows.

The State to be allowed to have always in the University twice as many students, selected from the public schools, as she has taken shares or presentations, say 120 students.

The city to have the same privilege from her public schools.

Private individuals to be in the same position, and this is a noble one, if they have no children of their own, to be *in perpetuo* a benefactor to those in humble life, eager for knowlege, but unable to obtain it. What a proud satisfaction for so small an expenditure. This right of presentation would be inheritable, alienable, not liable to taxation, seizure upon execution, &c.

Here, then, is the rough draft of a system which calls upon the State only to erect buildings; which calls upon the 150,000 citizens of New Orleans for 40 cents each; upon our men of large fortunes for a small fraction at the highest interest, and we have educated in Louisiana, in the highest branches of knowledge, 140 students paying the paltry sum of \$50 each per annum, and 480 paying nothing at all.

And here, in conclusion, let me observe.

1. The capital of \$300,000 is a mere arbitrary one, assured as a minimum; but let it be \$1,000,000, if we please, if so much can be raised.

2. The number of professors may be increased or diminished to suit the means of the institution: the same of the rates of tuition.

The law and medical department will stand upon different and independent ground, as made to do by the late act of incorporation.

3. Academical education, with slight modification, could be made a part of the plan.

5. Additional means for apparatus, library, &c., could be obtained by collection throughout the state, from those who, being unable to give \$1500, would freely furnish 5, 10, 20, or 50 dollars.

This you will perceive throws much labor upon the administrators to perform, in which, however, they will be moved by high considerations. I think the institution could succeed now upon such a basis. I am very much afraid that it will not succeed for a very long time upon any other. But I see I have written you a long letter, in the dry details of which you are doubtless fatigued. However, forgive the intrusion from the motive,

And believe me to be with high regard

Your friend,

MAUNSEL WHITE.

AGRICULTURE OF THE SOUTH AND WEST.

I.—CULTIVATION OF THE OLIVE IN THE SOUTHERN STATES.

THE Hon. Mitchell King delivered lately before the agriculturalists of South Carolina, a learned and elaborate address on this interesting subject, with which he has politely favored us. Mr. King occupies place, among the first citizens of that commonwealth, as a jurist and scholar, and presided for some time over one of its first literary institutions, from considerations of high public spirit and feelings the most honorable to our nature. We are glad to see such men enlisted in behalf of agriculture and its elevated prosecution among us. Mr. King remarks:

“From the first settlement of Carolina, it has been considered well adapted to the culture of the olive. In one of the earliest accounts of the country, by Richard Blome, published in 1678, it is said that the olive trees brought from Portugal and the Bermudas, increase exceedingly, and will produce a quantity of oil. And Samuel Wilson, who had been for years agent of the Lords Proprietors, repeats nearly the language of Blome, and adds, ‘the inhabitants take great care to propagate, more so, that in all probability, it will be an excellent oily country.’ When the charter of Carolina of 1663 was granted, the other proprietors left the chief management of the colony to the very able and unscrupulous Lord Shaftsbury. It is well known that at

his request Mr. Locke drew up his celebrated Fundamental Constitution of Carolina—but it is not generally known that for a number of years he carried on an active correspondence with the colony, in which he took the deepest interest, and it is highly probable that in 1679 he procured Mr. Locke to write his judicious observations on wine, olives, fruit and silk, with a special view to South Carolina. The troubles in which Shaftsbury was soon after involved, and his death, in January, 1683, no doubt prevented these observations from being published until a long time after. In the description of Carolina, of 1684, by T. A. Gentleman, we are told 'the olive trees thrive there very well.' Mr. James Colleton, brother to Sir Peter, one of the honorable proprietors, brought an olive stick from Fayal, cut off at both ends, to Carolina, which, put into the ground, grew and prospered exceedingly. If the olive be well improved, there may be expected from thence, perhaps, as good oil as any the world yields.* Gov. Glenn tells us, that in the intense frost of the 7th of January, 1747, probably the severest ever felt in Carolina, he lost an olive tree of such prodigious size that he thought it proof against all weathers. It was near a foot and a half diameter in the trunk, and bore many bushels of excellent olives every year. We may conclude, that this was probably one of the first olives planted in the country, and could scarcely have been less than sixty or seventy years old. Even this terrible winter would seem not to have killed all our olive trees, for Dr. Milligan, in Charleston, in 1763, says 'we have plenty of olives.*'

Mr. King then refers to an admirable letter which he had received from J. Hamilton Couper, Esq., of Darien, Geo., from which we extract the following:

"The first and all-important question which presents itself is, whether our climate is adapted to the olive-tree: and to what portion of our territory we may hope to extend its cultivation. The facts which will be presented, are I think decisive, that the immediate sea-board of South Carolina and Georgia, the whole of Florida, and the borders of the Gulf of Mexico are as suitable for the cultivation of the olive as the south of France.

"First as to climate,—Arthur Young, in his travels through France, vol. I., p. 311, observes, 'several other plants beside the olive mark this climate, the olive climate. Thus, at Mentelimart, in Dauphiné, besides that tree you meet with, for the first time, the pomegranate, the arbor judæ, the paliurus, figs, and the evergreen oak.'

"The orange tree is found to be more tender than the olive, in France and Italy. The same writer says, 'the latter, the orange, is so tender that this, Hieres, is supposed to be the only part of France in which it will thrive in the open air. I went to Hieres to view them, and it was with pain I found them, without exception, so damaged by the frost in the winter of 1788, as to be cut down, some to the ground, and others to the main stem.'

Simonde mentions in his work on "Tuscan Agriculture" that the olive is considered in Italy as hardier than the vine. He further observes that he himself had olives and vines planted together, and the latter suffered most from the cold. Mr. Jefferson, in his letter of July, 1787, to the Agricultural Society of South Carolina remarks, "wherever the orange will stand at all, experience shows that the olive will stand well, being a hardier tree."

"These extracts, which are from writers of the highest authority, are interesting, as they show from the growth of the fig, the pomegranate, and the orange, that the climate of the olive region of France is no milder than the maritime districts of South Carolina and Georgia, and the whole of Florida. But the actual growth of the olive tree itself, proves this most conclusively, as far as the limited period which has elapsed since the introduction of that plant into this country admits of a comparison.

* In a letter to Chancellor Johnston, Mr. King quotes from a paper by the Governor of South Carolina, in 1747, who says, "the frost has destroyed almost all the orange trees in the country. I lost about three hundred bearing trees, and an olive tree of such prodigious size that I thought it proof against all weather. It was near a foot and a half in diameter, in the trunk, and bore many bushels of excellent olives every year."

"I believe that you had some olive trees growing in Charleston for half a century, before the fatal spring of 1835. Ramsey mentions the fruit being pickled from trees imported by Henry Laurens.

"At Dungeness, on Cumberland Island, Georgia, a number of trees bore abundantly for many years before that season.

"In 1825 my father imported, through a French house in Charleston, two hundred trees from Provence, via the Languedoc canal and Bourdeaux. They were five months on the way, and did not arrive until May, notwithstanding which a very few only failed to grow. These trees were planted at Cannon's Point, his residence on St. Simon's Island, latitude $31^{\circ} 20'$; and had borne several small crops of olives, when the severe cold of February, 1835, (8° of Fahrenheit,) injured them so much that it was necessary to cut them down to the ground. They all threw up shoots from the old stumps; and many of them have now attained to a diameter of nine inches. For the last two years they have produced some fruit; and this year about one-half of the trees are bending under the weight of an abundant crop. About one hundred trees raised from cuttings are also beginning to bear. It is now twenty-one years since the importation of these trees, and with the exception of the destructive season of 1835, they have never in the slightest degree been injured by the cold. The last winter was one of unusual severity,—the thermometer having sunk to 19° Fahrenheit; and although the sweet oranges on the same plantation were much injured, some having been cut down to the ground, I could not perceive that a single leaf, among two hundred and fifty olive trees, had been touched by the frost. This experience is certainly very satisfactory, the more particularly as it is certain that the season of 1835 was the coldest known on this coast, for at least one hundred years; as is proved by the destruction of orange trees on St. Simond's Island, which had stood since the occupation of that island by Gen. Oglethorpe, and of others at St. Augustine, which dated still farther back.

"The effect of one such disastrous year should not discourage the introduction of so valuable a tree. In the south of France they have persevered in its cultivation, although in 1709 and 1788, almost every tree was destroyed to the ground; and they were severely injured in 1740, 1745, 1748, 1755 and 1768.

"The question may be asked by those who have usually regarded olive oil as merely an article of household economy, of very limited use in North America, whether a ready sale of the oil can be depended on? They may believe with the late Abbe Correa, that our countrymen have 'bacon stomachs,' and that it will be very difficult, so far to conquer the obstinacy of established habit, as to induce them to substitute pure oil for rancid bacon. If the only use of this oil were for food, it would undoubtedly require time to introduce it into general consumption, but that time will effect it there can be no doubt, from the intrinsic value of the article. Until then an ample demand for all that can be produced will be found in the annually increasing consumption of this oil in machinery, and in various manufactures, particularly of wool and soap. Already we import 82,655 gallons, see Report of the Secretary of the Treasury, for 1845, and as our manufactures are comparatively as yet but in their infancy, and our population increasing with undiminished rapidity, there is no danger of the production overtaking the demand. What the demand may become is shown by the fact that England imported in the year 1830, 2,971,057 gallons of olive oil, valued then at \$2,500,000—an average of 88 cents per gallon.—McCulloch's Commercial Dictionary, article 'Olive Oil.' And that France, although the production of that kingdom was as early as 1788, estimated at 75,000,000 of francs, or nearly \$15,000,000, has yet imported in one year olive oil to the value of near 30,000,000 francs, or \$6,000,000.

"Some idea may be formed of the value of the olive tree as a source of national wealth, from the above statement of its production in France, a country on the northern verge of the olive climate. In countries more favorably situated, it is still more important. The small kingdom of Naples exports annually about 7,300,000 gallons of olive oil, valued there at \$3,400,000.

But as olive oil enters largely into domestic consumption, particularly among the lower classes, forming a wholesome and nutritious article of food, it has an importance far exceeding its merely commercial value. The ample home production of the necessities of life, is the true foundation of national independence and happiness: and whatever adds to the unstinted enjoyment of physical comfort, it becomes the well-wisher of his country to value. It may safely be asserted that the United States owe

their great happiness and prosperity more to the cheap abundance of Indian corn, and the consequent full supply of animal food, than to all of the staples which figure so largely on the list of foreign exports.

"Mr. Jefferson, with equal beauty and patriotism, observes, 'if the memory of those persons is held in great respect in South Carolina, who introduced there the culture of rice, *a plant which sows life and death with equal hand*, what obligations would be due to him who should introduce the olive tree, and set the example of its culture! Were the owner of slaves to view it only as a means of bettering their condition, how much would he better that by planting one of these trees for every slave he possessed! Having been myself an eye witness to the blessings which this tree sheds on the poor, I never had my wishes so kindled for the introduction of any article of new culture into our own country.'"

2.—AN APPEAL TO THE COTTON PLANTERS.

THE editor of the Commercial Review is indebted for the following letter:

HUDSONVILLE, Miss., Feb. 1, 1847.

Sir,—Could not your patrons from the cotton planting interest be stimulated to interchange opinions in your valuable periodical upon the subject of the cotton crop, without trenching upon the other interests discussed in the Review?

We reply briefly, that nothing in the world would please us better. We should be happy for the correspondence of every thinking planter who can spare a few moments for purposes so useful. Our work is designed as a repository of all valuable southern and western statistics and information, and with the great staples of sugar and cotton we may be supposed to be most intimately connected and identified. When we have, as it is our hope soon, the support of the Planters of all Louisiana, Mississippi, Alabama, Georgia, Carolina and Texas, besides our great commercial support, we can and will enlarge the work greatly; though at present larger than any one of the same price in the Union. Let every subscriber take our interest in hand and get us one new name, remitting the money, and it will be soon seen that our word is fulfilled. Meanwhile the cotton interests must not be neglected, indeed, they have not been, as the reader will see by reference to the pages of the volumes we have already published during this and last year. Has not our work given satisfaction every where? Modesty forbids us to go further.

3.—THE SUGAR INTEREST AND SUGAR PLANTERS OF LOUISIANA.

On all sides there is a reported deficiency of the sugar crop the present season. Although we have not the most reliable advices from the West Indies, it seems yet to be taken for granted that there will be a falling off. The statistics of the crop which have thus far been taken in Louisiana, show a decline of from $\frac{1}{3}$ to $\frac{1}{2}$ from last year. 'The Planters' Banner gives the crop of St. Mary's Parish, one of the best in the State, as 14,626 hhds. in 1843; 18,139 hhds. in 1844; 24,671 hhds. in 1845; and 16,525 hhds. in 1846. The returns so far as handed in to us by the agent of the Commercial Review, Mr. Price, especially charged with the collection of these statistics, show an equal decrease in most of the Parishes through which he has travelled. Hereafter it is our intention, if possible, to publish yearly statements such as those furnished formerly by Mr. Champomier. The total sugar yield of Louisiana for this year is not estimated, so far as we can learn, higher than from 125,000 to 150,000 hhds. against

210,000 last year. This, notwithstanding the new estates taken into cultivation and the extension of the sugar region on the Red river, where there can be no doubt it will eventually become a most profitable staple. Statistics and facts on this point have been promised us by planters in that quarter which we shall gladly publish.

The following very judicious reflections are made by one of our contemporaries, speaking of the enhanced consumption of sugar in Great Britain in consequence of a reduction of duties: "From the British West Indies we can look for no increase; our own energies will be amply taxed to provide for our increasing consumption, and filling the vacuum occasioned by the attraction to the English market of a portion of the produce of the Spanish and Danish islands that has usually found a sale in ours. The Spanish islands and Brazil might supply it if they could obtain the hands, but there is the obstacle; to suppose them capable of it, would be to suppose at the same time a vast increased ratio of importations of negroes from Africa, which is not likely to take place. Their present importations of Africans, large as they are, only serve to keep their productions on a level with the demand for the rest of the world—the gates of the English market being closed to them. How, then, can they meet the increased demand consequent upon the opening of her ports.

"There are other sources in the East of inexhaustible, of unlimited extent, which can be brought to its aid. To begin with the Mauritius—this island presents a striking contrast to the West Indies, the production of sugar having increased thirty thousand tons since the emancipation of the slaves. Situated at a distance of only fourteen days from the teeming continent of India, she has been abundantly supplied with the labor of immigrants who have proved skilful and industrious workmen. The soil of the island is of the most fertile description, and a very large portion of it has yet to be brought under cultivation, offering every prospect of an extensive and progressive increase of production. Passing over to the countries on the main land under British sway, we find a population of 100,000,000 who are large growers and extensive consumers of sugar. It was at one time denied that East India sugar could compete with that of the West Indies, an illusion which the equalization of the duties quickly dispelled, the importations thence previously at zero, having risen in 1845, to the large quantity of 80,000 tons, and a certain description called Khaur Sugar, after the district that produces it, commands the highest price in the market, being sought by the refiners, on account of its excelling all others in strength. Production there has not by any means reached its maximum, and we may set down its capability, as regards soil and attainment of labor, as exceeding any development of its resources that has yet been made. The islands of Java and Ceylon, combining a population of ten millions, are also sugar producing countries, and are likely to supply large additional quantities for export."

4.—NEW PRODUCTS FOR OUR COUNTRY.

The Hon. Henry A. Wise, Minister to Brazil, in a letter to the Commissioner of the Patent Office, remarks:

"I have never seen any of the cotton of which you speak, from the banks of the Amazon, in the interior of Brazil. That about Rio de Janeiro grows very high, and is of a very long staple. It is longer and more silky than ours, but not so soft. It is used, I am told, chiefly in making hosiery, whilst ours is more fit for the sheeting and cloth, in the factories of Europe. It would be well for us to have it and to try its growth in soils and climates suitable. I will endeavor to procure seeds of every species of cotton and rice.

"Much for commerce and luxury both might be introduced into our extreme southern country, from Brazil. Why not coffee? Tapioca, mandioca, the great varieties of fruits, and particularly the dye-woods, the cabinet woods, and the innumerable silk and Manilla grasses for bagging and ropes? A Brazilian friend has promised to furnish me with seeds of the jacaranda tree—that beautiful black ebony-like wood which so far surpasses, in my taste, the mahogany. These, when received, I will send to you. The "nuga" tree, also of this country, might be introduced. It is a beautiful shade-tree, grows as large as our hickory, and bears a nut very similar but larger, which is used to make, it is said, the best painter's oil. It resembles the

hickory in the bark and the sycamore in the leaf. The truth is, one is confounded by the question what plants to send home, such are their numbers, varieties, uses and beauties, and the doubts respecting their standing our climate. I send you a small parcel of some species of acacia. The small pods are of a beautiful flower, and the large red seeds are of a tree like the locust."

THE SCIENCE OF STATISTICS.

The science of statistics is of recent origin. Archenball, who was born at Elbing, in Prussia, in 1719, and died in 1772, was the first who gave the name and a scientific form to this branch of knowledge. His compend, originally published in 1749, went through seven editions. His most distinguished pupil, Schlosser, carried out his views still further in the excellent yet incomplete "Theory of Statistics" printed at Gottingen in 1804. In 1807 appeared Newman's "Outlines of Statistics." In the systematic and compendious treatment of this subject, Toze, Remer, Meusel, Sprengel, Mannert, Fischer, and especially Hassell, have distinguished themselves. The last named is the eminent geographer. In Italy there are the well known names of Balbi, Quadri, and Gioja. The first European government that paid any attention to the collection of statistics in a systematic manner, though this was on a limited scale, was Sweden.

About the middle of the last century a special commission was employed who made known at intervals of five years many interesting facts in relation to the population of the country, etc. Schlosser having called attention to the important results of the Swedish commission, several other States soon entered into a similar arrangement. There is now a Statistical Department, or what is termed a "Bureau" in connection with the government of Prussia, Austria, Bavaria, Wurtemberg, Naples and Sardinia. At the head of the "Bureau" in Berlin is a gentleman of great intelligence, M. J. G. Hoffman. In 1832 Lord Auckland and Mr. Poulett Thompson, who then presided over the Board of Trade, in England, established a statistical office in that department, to collect, arrange and publish statements relating to the condition and bearing upon the various interests of the British empire. The volumes annually printed and laid before Parliament by this office, are well known and highly esteemed. In the year 1831 a Statistical Society was formed in the kingdom of Saxony, which has prosecuted its objects with great energy and success. The French Society of Universal Statistics was founded on the 22d November, 1829, and is under the protection of the king. It proposes and decrees prizes, grants medals, publishes a monthly collection of its transactions, and maintains a correspondence with learned bodies in all countries. The Society numbers at present more than fifteen hundred members, French and foreign, who are classed into titular, honorary and corresponding members. The subjects about which the Society is employed are arranged into three classes: First. Physical and descriptive statistics, embracing topography, hydrography, meteorology, geology, mineralogy, population, man considered physically, hygiene, and the sanitary state. Second. Positive and applied statistics, embracing vegetables and animal productions, agriculture, industry, commerce, navigation, state of the sciences, general instruction, literature, languages, and the fine arts. Third. Moral and philosophical statistics, including the forms of religious worship, legislative and judicial power, public administration, finance, the military, marine and diplomacy.*

The science of statistics may be considered as almost a new one in our country, it has, nevertheless, of late excited much attention, and we see from the reports of Congress and of State, down to the newspaper press, the strongest evidences of its favor and progress. Such a science is worthy of all attention, and deserves to be introduced into our schools and colleges as it is into the merchants counting house and the legislative halls, as an independent and most important branch of sound practical education.

* Hazard.

INTERNAL IMPROVEMENT CONVENTION IN THE WEST.

It is known to every one that amongst the moving causes of the great convention which assembled at Memphis in November 1845, and among the primary objects of consideration there, was that of improving the navigation of western rivers and harbors. The people of many States united in deliberation, and agreed upon a memorial to Congress, which gave rise to the celebrated exposition of Mr. Calhoun, as yet but imperfectly understood in the country, and had an indirect influence in promoting the "Internal Improvement Bill," which the President of the United States at once rejected.

The subject appears on the eve of being again brought before the country, and will without question, as it always has, give rise to many conflicts of views and interests and be settled only, if settled at all, by a compromise between the opponents and advocates of the system meeting each other on the ground assumed by Mr. Calhoun, or upon some other of a similar character.

A movement is now being made in many of the Western States to bring the question again before the people and to pass upon it in a convention called for the express purpose of all the States immediately interested in the commerce of the western rivers. Without expressing our views upon the propriety of such a call or upon the subjects proposed to be discussed, we will furnish the reader with a copy in our next number of the Circular directed to us by Wayman Crow, Esq., President of the St. Louis Chamber of Commerce.

COMMERCE OF THE UNITED STATES.

EXPORTS DOMESTIC MANUFACTURES FROM THE UNITED STATES IN 1846.

The Secretary of the Treasury stated the total as \$9,569,349, including \$423,851 gold and silver coin, excluding the large and indefinite item of \$1,379,566 articles not enumerated.

MERCHANDIZE.	VALUE.	MERCHANDIZE.	VALUE.
Soap and tallow candles,	\$630,041	Wearing apparel,	45,140
Leather, boots and shoes,	346,516	Combs and buttons,	35,945
Household furniture,	317,407	Brushes,	3,110
Coaches, carriages, etc.,	87,712	Billiard tables and apparatus,	1,584
Hats,	74,722	Umbrellas and parasols,	2,477
Saddlery,	24,357	Leather, morocco skins, etc.,	25,667
Wax,	162,790	Fire engines and apparatus,	9,802
Spirits from grain,	73,716	Printing presses and type,	43,792
Beer, ale, porter and cider,	67,735	Musical instruments,	25,375
Snuff and tobacco,	695,914	Books and maps,	63,667
Linseed oil and spts. turpentine,	159,915	Paper and stationery,	124,597
Cordage,	62,775	Paints and varnish,	52,182
Iron, pig, bar, and nails,	122,225	Vinegar,	17,489
" castings,	107,905	Earthen and stone ware,	6,521
" all manufactures of,	921,672	Manufactures of glass,	90,860
Spirits from molasses,	268,552	Do. tin,	8,902
Sugar, refined,	392,312	Do. pewter and lead,	10,278
Chocolate,	2,177	Do. marble and stone,	14,234
Gunpowder,	140,879	Do. gold & silver, gold leaf,	3,660
Copper and brass,	62,088	Gold and silver coin,	423,851
Medicinal drugs,	200,505	Artificial flowers and jewellery,	24,420
Cotton goods, printed and col'd,	380,549	Molasses,	1,531
" white,	1,978,331	Trunks,	10,613
" twist, yarn, thread,	81,813	Brick and lime,	12,578
" other manufac. of,	255,799	Domestic salt,	30,520
Flax and hemp, manufactures of,	12,129	Articles not enum'd, manufac.,	1,379,566
			\$10,904,185

COMMERCE OF THE STATES.

I.—EXPORTS OF THE DIFFERENT STATES, 1845—46.

	Domestic Produce.			Foreign Produce.		
	American vessels.	Foreign vessels.	Total.	American vessels.	Foreign vessels.	Total.
Maine,	\$1,299,303	\$18,796	\$1,318,099	\$1,121	\$9,148	\$10,269
N. Hampshire,	2,745	2,252	4,997	—	75	75
Vermont,	215,316	—	215,316	188,504	—	188,504
Massachus'ts,	6,852,656	984,359	7,837,015	1,865,726	610,377	2,476,103
Rhode Island,	176,160	43,859	220,019	4,325	20	4,345
Connecticut,	713,796	52,116	765,912	10,000	—	10,000
New York,	24,353,483	5,232,383	29,585,866	4,853,722	2,493,825	7,349,547
New Jersey,	4,087	—	4,087	—	—	—
Pennsylvania,	3,932,579	225,439	4,157,918	574,957	18,130	593,087
Delaware,	144,045	—	144,045	2,177	—	2,177
Maryland,	5,172,550	1,571,560	6,744,110	90,751	34,194	124,945
D. Columbia,	771,347	142,344	913,701	1,062	151	1,213
Virginia,	3,245,539	283,424	3,528,963	336	—	336
N. Carolina,	384,040	30,358	414,398	—	—	—
S. Carolina,	4,610,505	2,219,030	6,829,535	2,367	16,575	18,942
Georgia,	1,075,169	1,632,834	2,708,003	—	—	—
Florida,	132,116	5,423	137,509	31,618	7,291	38,909
Alabama,	3,159,550	2,100,767	5,260,317	—	—	—
Louisiana,	21,929,201	8,818,332	30,747,523	287,099	241,072	528,171
Ohio,	208,333	144,207	352,630	—	—	—
Michigan,	251,890	—	251,890	—	—	—
Total,	\$78,634,410	23,507,483	103,141,893	7,915,765	3,430,858	11,346,623

2.—IMPORTS.—STATES.

	American vessels.	Foreign vessels.	Total.
Maine,	\$674,146	\$112,946	\$787,092
New Hampshire,	10,936	4,549	15,485
Vermont,	127,223	—	127,223
Massachusetts,	10,256,942	4,934,021	24,193,963
Rhode Island,	208,045	2,444	210,489
Connecticut,	493,775	9,703	413,478
New York,	65,903,763	8,350,520	74,254,283
New Jersey,	—	635	635
Pennsylvania,	7,519,545	265,829	7,989,396
Delaware,	11,215	—	11,215
Maryland,	3,777,086	265,829	4,042,915
District of Columbia,	72,338	7,432	79,770
Virginia,	202,884	6,120	209,004
North Carolina,	239,333	3,526	242,859
South Carolina,	833,294	69,242	902,536
Georgia,	158,218	47,277	205,495
Florida,	96,419	44,165	140,584
Alabama,	119,268	140,239	259,607
Louisiana,	6,027,281	1,195,809	7,223,090
Mississippi,	831	—	831
Tennessee,	3,412	—	3,412
Missouri,	73,569	—	73,569
Ohio,	98,985	3,729	102,714
Kentucky,	32,958	—	32,958
Michigan,	154,406	522	154,928
Texas,	2,201	15,065	17,266
Total,	\$106,088,173	\$15,683,634	\$121,691,797

3.—THE COASTING TRADE

Is conducted, according to the Secretary of the Treasury, by 3,174 sailing vessels of seventy-five tons and above, and 931 steamers of the same class. They are thus apportioned among the States :

	Steam.	Sail.		Steam.	Sail.
Maine,	12	1170	South Carolina,	10	35
New Hampshire,		7	North Carolina,	18	34
Vermont,	4	1	Georgia,	19	5
Massachusetts,	25	406	Florida,	18	26
Rhode Island,	2	75	Alabama,	48	24
Connecticut,	15	135	New Orleans,	99	36
New York,	189	663	St. Louis,	89	
New Jersey,	51	345	Kentucky,	40	
Pennsylvania,	112	100	Tennessee,	16	
Delaware,	6	31	Ohio,	84	89
Maryland,	24	140	Michigan,	25	65
District of Columbia,	6	7	Texas,	5	4
Virginia,	32	52			

4.—THE COAL RESOURCES AND TRADE OF PENNSYLVANIA.

According to the Philadelphia Commercial List, anthracite coal was first used on tide water in 1820 and the supply then sent to market, 365 tons. In Britain coal has been used since the 12th century, a charter then being granted to the New Castle miners. The English coal trade now reaches 40,000,000 tons annually.

There appears to be 503 miles of rail-roads and 417 miles of canals running to the coal mines of Pennsylvania, having been constructed at a cost of \$34,000,000.

Products of the coal mines since 1820 :

Year.	Total Supply.	Annual increase and decrease.	Year.	Total Supply.	Annual increase and decrease.
1820	365		1834	376,636	111,112 D.
1821	1,737	572	1835	596,603	119,967
1822	2,240	1,303	1836	683,057	86,454
1823	5,823	3,583	1837	881,476	198,419
1824	9,541	3,718	1838	737,407	154,069 D
1825	34,893	25,352	1839	819,328	81,921
1826	48,047	13,154	1840	864,414	45,086
1827	63,434	15,387	1841	808,913	55,501 D
1828	77,516	14,082	1842	1,108,050	299,137
1829	112,083	34,567	1843	1,256,312	148,262
1830	174,734	62,651	1844	1,627,235	370,923
1831	176,820	2,086	1845	2,014,888	387,653
1832	363,871	187,051	1846	2,312,514	297,626
1833	487,784	123,877			

By comparing the above with the following, will be observed the vast preponderance of the domestic over the foreign article :

IMPORTS OF FOREIGN COAL INTO THE UNITED STATES.

1821	22,122	1826	35,665	1831	36,509	1836	108,432	1841	155,394
1822	34,523	1827	40,252	1832	72,978	1837	153,450	1842	141,521
1823	30,433	1828	32,302	1833	92,432	1838	129,083	1843	41,183
1824	7,228	1829	45,393	1834	71,626	1839	181,551	1844	87,073
1825	25,645	1830	58,136	1835	49,969	1840	162,867	1845	85,776

COMMERCE OF AMERICAN CITIES.

1.—COMMERCE OF NEW YORK.

	<i>Exports in 1846.</i>			<i>Imports in 1846.</i>	
	Foreign goods dutiable.	Foreign not dutiable.	Domestic goods.	Foreign goods dutiable.	Do Free.
January,	\$124,575	\$36,857	\$1,939,412	\$4,842,884	\$376,905
February,	120,255	52,248	1,673,245	4,177,952	474,360
March,	122,072	66,216	1,463,529	8,657,793	1,092,476
April,	195,518	114,927	1,998,736	4,105,393	2,228,878
May,	208,562	85,850	2,539,096	4,160,360	1,300,751
June,	223,504	93,058	3,745,687	4,605,527	1,239,006
July,	122,403	40,414	2,876,015	5,411,595	729,235
August,	167,772	39,484	2,413,782	7,585,427	826,815
September,	305,860	82,309	2,238,401	5,272,923	600,849
October,	296,240	74,199	3,354,142	2,738,997	991,449
November,	217,930	60,357	3,510,269	2,568,183	719,215
December,	118,345	65,876	4,211,300	4,279,813	537,496
	\$2,223,136	\$811,795	\$31,953,611	\$58,406,847	\$11,117,435
Total,	:	:	\$36,423,762	Total :	\$70,269,811
Exceeding 1845 by	:	:	3,532,100	Exceeding 1845 by	937,412

Including an import of \$745,520 and an export of \$1,435,220 in specie.

2.—COMMERCE OF PHILADELPHIA.

The following shows the number of arrivals at this port during the last four years, viz:—

	Foreign.	Coastwise.	Total.
1846 - - - - -	459	6018	6477
1845 - - - - -	387	8029	8416
1844 - - - - -	172	7717	8189
1843 - - - - -	372	7659	8031

3.—COMMERCE OF BOSTON.

Imports of 1846.—Coal, 185,730 tons and 149,100 bushels anthracite coal coastwise; 5,277 tons and 48 chaldrons English coal; 21,380 chaldrons from British Provinces. Import cotton, 191,764 bales; Molasses, foreign, 55,734 hhds., 3,041 tierces, 4222 bbls.; Coastwise, 13,754 hhds., 103 tierces, 1439 bbls. Flour from New York, Albany, and by Western Railroad, 500,236 bbls.; from Alexandria, Georgetown, and Virginia, 93,557 bbls; from New Orleans, 93,804; all other places, 60,526. Total, 748,123 bbls.

IMPORTS OF GRAIN.

	<i>Corn.</i> bushels.	<i>Oats.</i> bushels.	<i>Rye.</i> bushels.
From New Orleans	733,623		891
Baltimore,	443,015	36,879	
Philadelphia,	346,194	43,996	
Norfolk,	326,805	11,557	
New York,	157,202	146,398	13,650
Delaware,	113,496	38,550	
Fredricksburg	85,825		
New Jersey,	49,120	19,236	325
Albany,	45,460	74,573	2,047
Alexandria and Georgetown,	26,467		77
Other ports in Virginia,	24,019		

Table continued.

					<i>Corn.</i> bushels.	<i>Oats.</i> bushels.	<i>Rye.</i> bushels.
North Carolina, -	-	-	-	-	9,197		
Rhode Island -	-	-	-	-	7,000		
Massachusetts, -	-	-	-	-	4,500		
Maine, -	-	-	-	-	2,100	42,228	
Connecticut, -	-	-	-	-	460	1,500	170
Total, -					2,374,484	414,415	17,160
Imports in 1845, -					2,371,406	548,583	24,184
The imports of Tar, 16,756 barrels; and of Turpentine, 34,728 bbls.							
The importations of Sugar, 23,964,868 pounds of brown, and 591,702 do. of white, valued at \$1,289,869.							
The imports of Coffee, 29,046,337 pounds, valued at \$1,807,401.							
There were imported in the same time 325,486 Hides and 3,067 bales of Hides from Calcutta and Manilla.							

4.—MINERAL RESOURCES, ETC. OF ALABAMA.

At a meeting of the citizens of Tuscaloosa, and of the county at large, held a short time since, several important changes in the mail route was urged upon the general government, through the resolutions of the Hon. B. F. Porter. The same meeting urges the establishment of a national foundry in the State for casting cannon and manufacturing arms suitable for the equipment of troops in the service of the United States, and for the general defence of the sea-board. We regard the motion as a most excellent one, and commend it to the consideration of the whole country. The memorial of the Legislature upon the subject contains some interesting particulars as to the resources of the State:

"There are in the neighborhood of Tuscaloosa extensive fields of bituminous coal on the lands of the general government, also iron ore to an indefinite extent, also owned by the general government, from which is manufactured some of the best iron now in use here. Tuscaloosa is situated at the head of navigation on the Warrior river, and within three days of the city of Mobile. It is believed that these coal beds are nearer the Gulf than any that have been yet discovered, and as it is probable that war steamers will come into general use, they would be invaluable as a supply of fuel for war and mail steamers, from the easy access to Mobile, Pensacola, New Orleans and Galveston."

The following opinion on the same subject was passed by Mr. Lyell, when in this country:

"In some of the inferior beds of limestone, (carboniferous,) there is a great mixture of iron, and throughout the range of this formation there has been traced an enormous mass of brown hematite, which seemed to me to constitute, where I examined it, at Murphy's, thirty miles from Tuscaloosa, a regular bed rather than a vein. From the abundance, accessibility, and richness of this ore, its proximity to the coal field and to the navigation of the Tombigbee river, I can hardly doubt that, like the coal itself, it is destined at no distant day to be a source of great mineral wealth to Alabama."

5.—THE WRECKERS OF FLORIDA—Key West.

A correspondent of the Charleston News gives many interesting particulars in relation to the wild life of the wrecker among the Florida Keys. "The wrecking business, as it is called is a source of very considerable revenue to the Government, and is the principal support of Key West; there are generally from six to eight vessels engaged in it. They are fine large sloops and schooners, each officered and manned by eight or ten persons. The crews generally are not on wages, but on shares. The owner furnishes the vessel with all necessary materials, provisions, &c.; and in the event of a wreck one half the amount of salvage is taken by the vessel, the other is divided among the officers and crew; that is to say, the captain receives three shares, the mate two, and each of the crew one. These vessels are generally

stationed at different points of the reef, where a constant look out is kept for vessels which may perchance get ashore on any part of it, when they immediately proceed to their assistance. Sometimes, two or more wreckers will unite in saving the goods from wrecked vessels, in which case an equal share is allotted to each, in the proportion that they may save. At times, when vessels are not damaged to such an extent as to prevent them from continuing their voyages, an agreement is made between the captain and the wrecker for the payment of a stipulated price, as compensation for the services rendered. In most cases where a vessel has been relieved, she is taken down to Key West, where there is a port of entry and an Admiralty Court; in the absence of the Court, the case is generally determined by arbitration, which has been often so arranged, as to have enabled the parties interested to defraud owners and underwriters of very large amounts. In many cases, the captains of the vessels shipwrecked, for certain weighty considerations, allow the wreckers to appoint the arbitrators, who, of course, are in their interest, and would give any amount which they were required to do. I hesitate not to say, that in a very large majority of instances where owners and underwriters have been swindled, the fault has been with the captain of the vessel shipwrecked, consigning to irresponsible agents. From what I can learn, there has been a better condition of things latterly, and a state of moral feeling in the community of Key West calculated to repress the evil practices which formerly existed.

Key West being an isolated place, and having no back country, is not likely to become a town of any considerable size; the resources consisting principally of the wrecks which are almost constantly occurring on the Florida Reef; and of the *Salt Ponds*, which are now in full operation, and of sufficient extent to furnish a very large quantity of salt for consumption. The income derived from shipwrecks is very considerable, as will be seen by the following statement:

1831	-	-	-	\$39,487 00	1839	-	-	-	\$90,797 00
1832	-	-	-	46,555 00	1840	-	-	-	85,113 00
1833	-	-	-	58,128 00	1841	-	-	-	71,173 00
1834	-	-	-	32,040 00	1842	-	-	-	38,103 00
1835	-	-	-	87,249 00	1843	-	-	-	83,811 00
1836	-	-	-	174,132 00	1844	-	-	-	88,369 00
1837	-	-	-	107,495 00	1845	-	-	-	63,981 00
1838	-	-	-	34,578 00					

This gives an average of very nearly \$80,000 per annum, besides the expenditures *incidental*, such as repairs, lading and unlading of vessels, cartage, storage, &c., all of which, added together, amount to a very considerable sum, and furnish employment to the laboring classes of the community.

6.—THE TRADE AND COMMERCE OF NEW ORLEANS.

Value of Exports, 1845.				Value of Exports 1846.			
	Coastwise.	To Foreign Ports.			Coastwise.	To Foreign Ports.	
January	\$1,813,290 54	2,139,818	January	\$2,753,227 58	\$2,230,444		
February	3,989,422 51	2,446,627	February	4,098,438 10	3,231,883		
March	2,588,658 00	3,003,578	March	4,257,781 96	3,875,974		
April	2,778,268 13	3,638,461	April	3,412,544 30	2,762,392		
May	1,456,033 67	2,482,029	May	2,391,860 37	4,145,943		
June	928,418 17	2,196,781	June	1,298,421 85	3,586,827		
July	767,220 40	1,306,675	July	1,119,458 11	3,418,940		
August	527,139 20	489,827	August	904,416 10	1,675,012		
September	505,665 00	773,484	September	454,206 25	581,178		
October	811,002 67	1,897,039	October	603,797 65	1,226,408		
November	1,615,976 55	3,790,302	November	1,058,071 21	1,906,896		
December	1,368,647 00	3,046,948	December	2,438,601 60	4,066,685		
	\$19,149,741 84	\$28,211,569		\$24,790,825 08	\$32,707,582		
Total amount of Exports, in 1845	-	-	-	-	\$47,361,310 84		
Total amount of Exports, in 1846	-	-	-	-	57,499,407 08		
Showing an increase in 1846 of	-	-	-	-	10,138,096 24		

7.—THE CITY OF LAFAYETTE.

Among the improvements so marked in our sister and neighboring city, there are none more interesting than that in relation to common schools. From the last report of the Commou Council, we glean that the schools were opened in 1841 at the expense of the Council, and that up to December 1842 there were admitted one hundred and twenty-nine boys and one hundred and nine girls. In December 1843, there were in regular attendance fifty-one boys and one hundred and seven girls. In November, 1844, there were in attendance one hundred and ten boys and one hundred and fourteen girls. In November, 1845, there were in attendance two hundred and fifty boys and two hundred girls. Admissions to the night school, which was opened in that year, fifty-seven. In December, 1846, there were in regular attendance four hundred and thirty-four boys and three hundred and twenty-six girls. In the night school fifty-four pupils. Making the whole number of scholars eight hundred and fourteen.

 THE PUBLISHING BUSINESS.

1.—*The Pleasures of Taste* by Jane Taylor. New York, Harper & Brothers. New Orleans, J. B. Steel, 1847.—Mrs. Sarah H. Hale, well and favorably known as the author of many pleasing works for the young, has made in this instance a very judicious selection from the writings of that excellent lady, Miss Jane Taylor, and published them in a very convenient and handsome book for popular reading.

2.—*Lives of Christopher Columbus and Americus Vesputius*, with engravings. New York, Harper & Brothers, 1847.—This is another of the useful publications of this house, intended to instruct our growing population in the incidents and events of the early history of their country, and of the men who endured the perils, the defeats, and the discouragements of discovery and colonization, a species of information which cannot be too much diffused.

3.—*The Revolt of the Netherlands*, from the German of Schiller. New York, Harper & Brothers. New Orleans, J. B. Steel, 1847.—The history of this interesting event was never more graphically and truthfully delineated than by the eminent German. It was one of those elevated contests for liberty which are ever treasured in memory as among the best deeds of men.

4.—*The American Poulterer's Companion*. By C. N. Bement. Harper & Brothers, 1847.—Every winged thing, valuable for purposes of domestic life is anatomically, &c., shown to us here, and whoever is curious in this kind of knowledge and values a good table, or would reap the reward of a good market, had better get the book.

4.—*Pictorial History of England*, No. 16. From Harpers'. The work goes rapidly on and gains in popularity. It will be completed in forty numbers. We wish we had the first fourteen.

5.—*Farmers' Library*, New York, by J. S. Skinner.—We have the January number, and repeat again what we have said before, it is the best agricultural work in the Union, deserving all encouragement. J. C. Morgan, Agent for New Orleans.

6.—*Hunt's Merchant Magazine*, New York, February, 1847.—We are always delighted to receive and notice as it deserves, this valuable work; though the editor we presume from the press of ten thousand engagements, has received our's for fifteen months without acknowledging its receipt in his pages. These things will however, sometimes happen, and we will not complain of our neighbor.

7.—*Southern Literary Messenger*. B. B. Minor, Richmond, Virginia. Monthly, \$5 per annum.—The February number in addition to other matter, gives us the introduction and first chapter of a history of Virginia, one of the *desiderata* of our country. We hope our friend Minor's enterprise will ever prosper.

8.—*Simmonds' Colonial Magazine*, London.—Let all who would be furnished with valuable foreign commercial and statistical information, make arrangements to receive this. It is one of the most valuable works of the age.

9.—*Banker's Magazine*, Baltimore. J. S. Homans; Monthly, \$3 per annum.—We refer our readers to the pages we have inserted in the back part of the Review, in relation to this journal. The work deserves the most liberal encouragement, though we regret to learn, that thus far the support has been very meagre. Should not our banks and commercial men ever seek to sustain such publications? We are sorry that our space forbids us to say more upon this head at present. Hereafter we shall do the publication more justice.

Our Exchanges.—We receive as usual, Niles' Register; Banker's Magazine; Law Reporter, Boston; Law Journal, Philadelphia; Medical Journal, New Orleans; Surgical Journal, Charleston; etc., etc.

EDITOR'S NOTE.—The third month of a new year has passed, and we hope that our subscribers will send in their dues as fast as possible. Such are the improvements we are making in the work, it will be absolutely necessary to have all of its dues as soon as possible. We rely upon the liberality and public spirit of our subscribers not to permit us to be crippled. We have received a great many remittances lately, for which we are thankful. Will not all remit?

The demand for the numbers of the work for 1846, is still so great that we shall be obliged very soon to republish them. This is most gratifying to us, the edition having been early exhausted, though a large one. Orders for back numbers will be registered and supplied as soon as it can be done.

If any of our subscribers, editors or others, have not preserved *all* of their back numbers, and would be willing to part with these for *January, March, July, or October*, 1846, by sending them to our address, we will furnish duplicates of any month of this year, or remit the value in books or money as it may be ordered. We wish these numbers to supply a few incomplete sets.

We are obliged to Senator Johnson, Mr. Morse, and Mr. La Sere, of our State, for public documents from Washington.

The defence of *Agessilaus*, from our friend in *Feliciana*, is not forgotten. The warrior shall not suffer. We should be pleased to hear oftener from so able a source.

We have several valuable contributions on our table.

PROGRESS OF THE PRINTING ART IN NEW ORLEANS.

Printing Office of the Review.

EVERY one must have observed the great improvement in the style and execution of printing in our city for the last few years. Improved execution and constantly augmenting business, have attended a reduction of rates. At present there is no better work done at the South than in New Orleans. We could point to several offices which produce the finest specimens, but the reader will pardon us for pointing to the Review itself, which we will venture to assert is not surpassed in typographical execution by any other periodical south of Philadelphia. We allude to this in justice to Mr. REA, whose extensive establishment deserves the most liberal support. His "Power Press," upon which the Review is worked, diminishes materially the cost of publication, and his "Card Press," of which he is the patentee for Louisiana, is of superior character. With equal favor for all the liberal proprietors of printing establishments in the city, we thought it not inappropriate in us to call attention to this. Before long we hope to publish an article on the History and Improvement in the Printing Art.